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=> fil cap
FILE 'CAPLUS' ENTERED AT 16:38:41 ON 10 AUG 2007
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FILE LAST UPDATED: 9 Aug 2007  (20070809/ED)

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=> d que l38
L1       646623 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CATALYSTS+PFT,NT/CT
L2        30422 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "IMMOBILIZATION, MOLECULAR OR
                CELLULAR"+PFT,NT/CT
L4      2081504 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PROTEINS+PFT,NT1/CT
L5       130829 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANTIBODIES AND IMMUNOGLOBULINS
                +PFT,NT/CT
L6       295904 SEA FILE=HCAPLUS ABB=ON  PLU=ON  RNA+PFT,NT/CT
L7          333 SEA FILE=HCAPLUS ABB=ON  PLU=ON  APTAMERS+PFT,NT/CT(L)(RNA OR
                RIBONUC?)
L8      1295009 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CELL+PFT,NT/CT
L9       490896 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ANIMAL TISSUE+PFT,NT/CT
L10       54942 SEA FILE=HCAPLUS ABB=ON  PLU=ON  MICROORGANISM+PFT,NT/CT
L11      476674 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ORGANELLE+PFT,NT/CT
L12          14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  METALS, BIOLOGICAL STUDIES/CT(
                L)CAT/RL
L15       14677 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS+PFT,NT/C
                T(L)CARRIER?
L19      567474 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYSACCHARIDES+PFT,NT/CT
L20      156168 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CARBOXYLIC ACIDS+PFT,NT1/CT(L)
                POLY?
L21      257262 SEA FILE=HCAPLUS ABB=ON  PLU=ON  POLYOXYALKYLENES+PFT,NT/CT
L22      246789 SEA FILE=HCAPLUS ABB=ON  PLU=ON  SURFACTANTS+PFT,NT/CT
L23      162076 SEA FILE=HCAPLUS ABB=ON  PLU=ON  PHOSPHOLIPIDS+PFT,NT/CT
L24        4455 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CELLULOSE+PFT/CT(L)(CARBOXYMET
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                OR 9005-49-6/RN OR 9042-14-2/RN OR 9086-85-5/RN OR 25087-26-7D/
                RN
L26        3310 SEA FILE=HCAPLUS ABB=ON  PLU=ON  25322-58-3D/RN OR 118037-03-9/
                RN OR 9004-61-9D/RN OR 9005-32-7D/RN
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L29       10235 SEA FILE=HCAPLUS ABB=ON  PLU=ON  CHITIN+PFT,NT/CT
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L33       19346 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L32 AND (L19 OR L20 OR L21 OR
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L35         168 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND L1
L36         831 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND L2
L37         314 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND L15
L38          38 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L35 AND (L36 OR L37)) OR
                (L36 AND L37)


=> d l38 ibib abs hitind hitstr tot
YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y


L38  ANSWER 1 OF 38  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2007:793538  HCAPLUS  Full-text
DOCUMENT NUMBER:          147:173767
TITLE:                    Non-leaching surface-active polymer film compositions
                          for microbial adhesion prevention
INVENTOR(S):              Qu, Xin; Gruening, Rainer; Merritt, Karen; Chen, Paul
                          N.; Falevich, Vitaly
PATENT ASSIGNEE(S):       USA
SOURCE:                   U.S. Pat. Appl. Publ., 20pp.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
     ---------------      ----   --------    -------------------      --------
     US 2007166344         A1    20070719    US 2006-334049           20060118
     WO 2007084452         A2    20070726    WO 2007-US1026           20070116
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
             CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN,
             KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK,
             MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO,
             RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,
             CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,
             GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
             KG, KZ, MD, RU, TJ, TM
PRIORITY APPLN. INFO.:                       US 2006-334049      A  20060118
AB    Surface-active, non-leaching antimicrobial film forming compns. and methods
      for their application to preferably medical device surfaces are provided.  The
      compns. form durable coatings with long-lasting antimicrobial efficacy without
      formation of a zone of inhibition. Optionally the films can be hydrophilic.
      Specific long-chain mols. of certain chemical reactivity are covalently bonded
      into a polymeric matrix. They maintain a long-term anti-microbial efficacy
      without being leached out into the aqueous environment.  The polymeric matrix
      of the compns. contain functional groups, which covalently bond to an amine,
      thiol, carboxyl, aldehyde or hydroxyl active group of selected long chain
      quaternary ammonium compds.  Upon formation of a covalent bonding with the
      polymeric matrix the long chain compds. become immobilized but still maintain
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antimicrobial efficacy. They do not leach out over extended period of time into the aqueous environment and maintain an antimicrobial efficacy against microorganisms. The coating is useful to prevent bacterial colonization on a variety of surface including surfaces of medical devices. Thus, a viscous dispersion was prepared by adding 10 g of polyvinylpyrrolidone (Kollidon 90) and 33 g of linear polyurethane aqueous dispersion (Nebrez R940) to 47 g of water and 10 g N-methylpyrrolidone and casted into films. Films were lubricious when wet (coefficient of friction 0.08) and imbibe water forming elastic, transparent films useful as burn and wound dressings. The solution can also be used to spin fibers which are tough and elastic when wet and can be used to produce hydrophilic foams via either mech. frothing or casting films with added acetone and drying with heat in vacuum.

INCL 424423000; 424405000; 424078300; 525127000; 525054200
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 37
IT Surfactants
(anionic; non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
IT Surfactants
(cationic; non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
IT Fibroblast
(cytotoxicity to; non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
IT Adhesion, biological
Amino group
Antibacterial agents
Antibiotics
Antimicrobial agents
Antiviral agents
Biocides
Carboxyl group
Crosslinking agents
Crosslinking catalysts
Cytotoxicity
Drugs
Eubacteria
Formyl group
Fungicides
Gums and Mucilages
Human
Hydroxyl group
Immobilization, molecular or cellular
Leaching
Medical goods
Microorganism
Prosthetic materials and Prosthetics
Sulfhydryl group
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
IT Acrylic polymers, biological studies
Oligomers
Polyamides, biological studies
Polymers, biological studies
Polyoxyalkylenes, biological studies
Polyurethanes, biological studies
Polyvinyl butyrals
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT Albumins, biological studies
Caseins, biological studies
Gelatins, biological studies
Phosphonium compounds
Polymer blends
Quaternary ammonium compounds, biological studies
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT Polysaccharides, biological studies
Vitamins
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT Surfactants
(nonionic; non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9003-09-2, Poly(vinyl methyl ether) 9003-19-4, Poly(vinyl ether) 9003-39-8, Polyvinylpyrrolidone 9056-77-3, Polyethylene glycol methacrylate 9086-85-5, Poly(hydroxypropyl methacrylate) 25249-16-5 25322-68-3, Polyethylene oxide 25322-69-4, Polypropylene oxide 26007-78-3 26022-14-0, Poly(hydroxyethyl acrylate) 26374-25-4, Poly(N-methylolacrylamide) 26403-58-7 26587-87-1, Poly(N-methylolmethacrylamide) 28156-60-7, (N-Hydroxyethyl)acrylamide polymer 50851-57-5, Poly(styrenesulfonic acid) 62501-03-5, Poly(hydroxypropyl acrylate) 75455-20-8 75455-33-3 88025-03-0, NeoRez R 940 92881-50-0, Tycel 7351 944044-90-0
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT 108-01-0D, alkyl derivs., chlorides 577-11-7, Dioctylsodium sulfosuccinate 3001-63-6, Quab 426 9000-11-7, Carboxymethyl cellulose 9004-35-7 9004-57-3, Ethyl cellulose 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9004-70-0 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 12597-68-1, Stainless steel, biological studies 13197-76-7 29297-55-0D, Vinylimidazole-vinylpyrrolidone copolymer, quaternized 30581-59-0D, Dimethylaminoethyl methacrylate-vinylpyrrolidone copolymer, quaternized 41892-01-7, Quab 342 51583-51-8D, alkyl derivs., chlorides 53633-54-8, Polyquaternium 11 54580-96-0D, N-acylderivs. 95144-24-4, Polyquaternium 16 109944-73-2, Hydroxymethyl ethyl cellulose 150599-70-5, Polyquaternium 44 306769-73-3, Polyquaternium-55 359010-09-6, Prapagen HY
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT 79-06-1, Acrylamide, reactions 79-10-7, Acrylic acid, reactions

88-12-0, reactions 107-25-5, Vinyl methyl ether 108-78-1, Melamine, reactions 151-51-9, Carbodiimide 151-56-4, Aziridine, reactions 557-75-5, Vinyl alcohol, reactions 818-61-1 868-77-9 19295-34-2D, Vinylpyridinium, halides 25584-83-2, Hydroxypropyl acrylate 26914-43-2, Styrenesulfonic acid 27813-02-1, Hydroxypropyl methacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

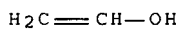
IT 3416-24-8D, N-acyl derivs., polymers 9005-49-6, Heparin, biological studies 35110-26-0, Polyglucosamine
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

IT 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9086-85-5, Poly(hydroxypropyl methacrylate) 25322-68-3, Polyethylene oxide 25322-69-4, Polypropylene oxide
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

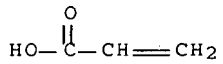
CRN 557-75-5
CMF C2 H4 O



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



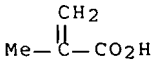
RN 9086-85-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, homopolymer (CA INDEX NAME)

CM 1

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

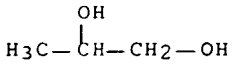
CM 2

CRN 79-41-4
CMF C4 H6 O2

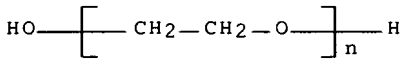


CM 3

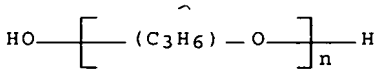
CRN 57-55-6
CMF C3 H8 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy- (CA INDEX NAME)



IT 9000-11-7, Carboxymethyl cellulose 9004-35-7
9004-57-3, Ethyl cellulose 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl cellulose 9004-67-5, Methyl cellulose 9004-70-0 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
RN 9000-11-7 HCAPLUS

CN Cellulose, carboxymethyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

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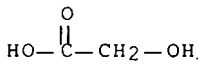
CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-35-7 HCAPLUS
CN Cellulose, acetate (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

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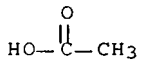


RN 9004-57-3 HCAPLUS
CN Cellulose, ethyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-17-5
CMF C2 H6 O

RN 9004-62-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-21-1
CMF C2 H6 O2

RN 9004-64-2 HCAPLUS
CN Cellulose, 2-hydroxypropyl ether (CA INDEX NAME)

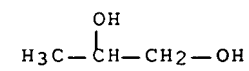
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9004-65-3 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl ether (CA INDEX NAME)

CM 1

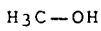
CRN 9004-34-6
CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

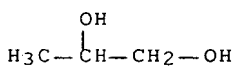
CM 2

CRN 67-56-1
CMF C H4 O



CM 3

CRN 57-55-6
CMF C3 H8 O2



RN 9004-67-5 HCAPLUS
CN Cellulose, methyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1
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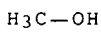


RN 9004-70-0 HCAPLUS
CN Cellulose, nitrate (CA INDEX NAME)

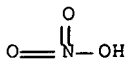
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

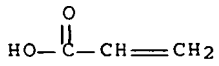
CRN 7697-37-2
CMF H N O3



RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 79-10-7, Acrylic acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (CA INDEX NAME)



IT 9005-49-6, Heparin, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(non-leaching surface-active antimicrobial polymer films for prevention of microbial adhesion to medical devices)
RN 9005-49-6 HCAPLUS
CN Heparin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 2 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:772342 HCAPLUS Full-text
TITLE: Manufacture and application of biodegradable magnetic nanoparticle
INVENTOR(S): Shen, Hebai; Zhu, Chenhua
PATENT ASSIGNEE(S): Shanghai Normal University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 12pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

CN 1994469	A	20070711	CN 2006-10031077	20060913

PRIORITY APPLN. INFO.: CN 2006-10031077 20060913

AB The title biodegradable magnetic nanoparticle has structure of core-shell type, wherein the core layer is magnetic ferric oxide, and the shell layer is 1-100 nm natural polymer material. The natural polymer material may be one or more of liposome, blood albumin, gelatin, starch, and chitosan. The magnetic nanoparticle is manufactured with inverse microemulsion method, and can be used in fields of cell biol., ultramicrochem., in-vitro separation and detection of biomacromol., and in-vivo diagnosis and tracing therapy.

CC 63 (Pharmaceuticals)

IT INDEXING IN PROGRESS

IT Drug delivery systems
(carriers; manufacture and application of biodegradable magnetic nanoparticle)

IT Immobilization, molecular or cellular
Magnetic materials
Nanoparticles
Particle size
(manufacture and application of biodegradable magnetic nanoparticle)

IT CD34 (antigen)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(manufacture and application of biodegradable magnetic nanoparticle)

IT Albumins
Gelatins
RL: BUU (Biological use, unclassified); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PRP (Properties); USES (Uses)
(manufacture and application of biodegradable magnetic nanoparticle)

IT 1309-37-1, γ-Ferric oxide 9005-25-8, Starch
9012-76-4, Chitosan
RL: BUU (Biological use, unclassified); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PRP (Properties); USES (Uses)
(manufacture and application of biodegradable magnetic nanoparticle)

IT 9005-25-8, Starch 9012-76-4, Chitosan
RL: BUU (Biological use, unclassified); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PRP (Properties); USES (Uses)
(manufacture and application of biodegradable magnetic nanoparticle)

RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 3 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:	2007:458864 HCAPLUS Full-text
DOCUMENT NUMBER:	146:458065
TITLE:	The application using non-covalent bond between a cucurbituril derivative and a ligand
INVENTOR(S):	Kim, Kimoon; Baek, Kangkyun; Kim, Jeeyoun; Hwang, Ilha; Ko, Young-Ho; Selvapalam, Narayanan; Nagarajan, Erumaipatty R.; Park, Kyeng-Min
PATENT ASSIGNEE(S):	Postech Academy-Industry Foundation, S. Korea
SOURCE:	PCT Int. Appl., 67pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007046575	A1	20070426	WO 2006-KR687	20060228
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 2007092867	A1	20070426	US 2006-407143	20060420
PRIORITY APPLN. INFO.:			KR 2005-99379 A	20051020
			KR 2005-108312 A	20051112
			KR 2006-891 A	20060104
			KR 2006-18434 A	20060224

AB Provided is a kit including a first component that is a compound A bound to a first material and a second component that is a ligand bound to a second material, wherein each of the first and second materials is independently selected from the group consisting of a solid phase, a biomol., an antioxidant, a chemical therapeutic agent, an antihistaminic agent, a cucurbituril dendrimer, a cyclodextrin derivative, a crown ether derivative, a calixarene derivative, a cyclophane derivative, a cyclic peptide derivative, a metallic ion, a chromophore, a fluorescent material, a phosphor, a radioactive material, and a catalyst; and the ligand can non-covalently bind to the compound A; a method of separating and purifying a material bound to a ligand using the compound A bound to a solid phase; a method of separating and purifying the compound A or a material bound to the compound using a ligand bound to a solid phase; a sensor chip including a compound A bound to a first material and a ligand bound to a second material; and a solid-catalyst complex including the compound A bound to a first material and a ligand bound to a second material.

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1

IT Affinity chromatographic stationary phases
Affinity chromatography
Amino group
Antihistamines
Antioxidants
Antitumor agents
Catalysts
Cations
Cell
Cell death
Cell membrane
Chemical formula
Chloromethylation
Chromophores
Fluorescent substances
Immobilization, molecular or cellular
Ionic liquids

Magnetic materials
Mixtures
Nanotubes
Nanowires
Noncovalent bond
Phosphors
Radioactive substances
Separation
Solvents
Test kits
Virus
(application using non-covalent bond between cucurbituril derivative and ligand)

IT Agglutinins and Lectins
Amino acids, uses
Antibodies and Immunoglobulins
Antigens
Biochemical compounds
Chemical compounds
Coenzymes
Crown ethers
Cyclic peptides
Cyclophanes
Enzymes, uses
Fatty acids, uses
Glass, uses
Glycoproteins
Histones
Hormones, animal, uses
Ligands
Metallocenes
Metals, uses
Nucleic acids
Polymers, uses
Polysaccharides, uses
Receptors
Resins
Vitamins
RL: NUU (Other use, unclassified); USES (Uses)
(application using non-covalent bond between cucurbituril derivative and ligand)

IT Proteins
RL: NUU (Other use, unclassified); PUR (Purification or recovery); PREP (Preparation); USES (Uses)
(application using non-covalent bond between cucurbituril derivative and ligand)

IT Albumins, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(serum, bovine; application using non-covalent bond between cucurbituril derivative and ligand)

IT 9004-54-0D, Dextran, crosslinked, uses
RL: NUU (Other use, unclassified); USES (Uses)
(Sephadex; application using non-covalent bond between cucurbituril derivative and ligand)

IT 52-90-4, L-Cysteine, uses 56-65-5, 5'-ATP, uses 58-64-0, 5'-ADP, uses 60-29-7, Diethyl ether, uses 64-17-5, Ethanol, uses 67-56-1, Methanol, uses 67-66-3, Chloroform, uses 67-68-5, Dimethyl sulfoxide, uses 68-12-2, Dimethylformamide, uses 70-18-8, Glutathione, uses 71-00-1, L-Histidine, uses 73-22-3, L-Tryptophan, uses 75-05-8, Acetonitrile, uses 75-09-2, Methylene chloride, uses 76-05-1, Trifluoroacetic acid,

uses 108-88-3, Toluene, uses 108-90-7, Chlorobenzene, uses 109-99-9, Tetrahydrofuran, uses 110-86-1, Pyridine, uses 111-46-6, Diglycol, uses 120-94-5, N-Methylpyrrolidine 121-44-8, Triethylamine, uses 123-91-1, Dioxane, uses 124-38-9, Carbon dioxide, uses 281-23-2, Adamantane 768-94-5, Adamantanamine 1314-23-4, Zirconium oxide, uses 1330-20-7, Xylene, uses 1336-21-6, Ammonium hydroxide 7440-21-3, Silicon, uses 7732-18-5, Water, uses 9000-92-4, Amylase 9001-54-1, Hyaluronidase 9001-92-7, Proteinase 9002-10-2, Phenoloxidase 9003-99-0, Peroxidase 9004-34-6, Cellulose, uses 9012-36-6, Sepharose 9012-54-8, Cellulase 9013-79-0, Esterase 9025-56-3, Hemicellulase 9029-60-1, Lipoxygenase 9032-75-1, Pectinase 9035-73-8, Oxidase 9037-17-6 9037-80-3, Reductase 9067-74-7, Arabinosidase 9075-68-7, Pullulanase 12176-38-4, Ferrocene methylamine 12619-70-4D, Cyclodextrin, derivs. 37278-89-0, Xylanase 37341-53-0, Keratinase 42613-30-9, Ligninase 51377-41-4, Cutinase 54724-00-4, Curdlan 80262-44-8D, Cucurbituril, derivs.
RL: NUU (Other use, unclassified); USES (Uses)
(application using non-covalent bond between cucurbituril derivative and ligand)

IT 9004-54-0D, Dextran, crosslinked, uses
RL: NUU (Other use, unclassified); USES (Uses)
(Sephadex; application using non-covalent bond between cucurbituril derivative and ligand)

RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9004-34-6, Cellulose, uses 9012-36-6, Sepharose 54724-00-4, Curdlan
RL: NUU (Other use, unclassified); USES (Uses)
(application using non-covalent bond between cucurbituril derivative and ligand)

RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-36-6 HCAPLUS
CN Agarose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 54724-00-4 HCAPLUS
CN Curdlan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 4 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:1010952 HCAPLUS Full-text

DOCUMENT NUMBER: 145:371752

TITLE: Identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use

INVENTOR(S): Blum, David; Gemsch, Joslin; Dycaico, Mark

PATENT ASSIGNEE(S): Diversa Corporation, USA

SOURCE: PCT Int. Appl., 495pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006101584	A2	20060928	WO 2006-US2516	20060113

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH; CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-662224P P 20050315

AB The invention provides polypeptides having cellulase activity, e.g., endoglucanase, cellobiohydrolase, mannanase and/or β-glucosidase activity, polynucleotides encoding these polypeptides, and methods of making and using these polynucleotides and polypeptides. The invention is directed to polypeptides cellulase activity, e.g., endoglucanase, cellobiohydrolase, mannanase and/or β- glucosidase activity, including thermostable and thermotolerant activity, and polynucleotides encoding these enzymes, and making and using these polynucleotides and polypeptides. In particular, a number of cellulase were identified and cloned from environmental libraries using GIGAMATRIX high-throughput expression screening platform to identify cellobiohydrolases using methylumbelliferyl cellobioside as substrate. Genes discovered in the GIGAMATRIX screen were sequenced and ORFs were annotated using a software system. GSSM technol. was used to rapidly and sequentially mutate the amino acids of the catalytic and carbohydrate binding domain of the target protein into the 19 other amino acids. The goal of the GSSM screen was to identify mutants that increased the extent of hydrolysis on insol. microcryst. cellulose. The polypeptides of the invention can be used in a variety of pharmaceutical, agricultural, food and feed processing and industrial contexts.

CC 7-2 (Enzymes)
Section cross-reference(s): 3, 10, 16, 17, 43, 63

IT Enzymes, biological studies
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); FFD (Food or feed use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(FDHD/NARQ oxidoreductase; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(anti-cellulase; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Drug delivery systems
(carriers; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Bacillus (bacterium genus)
Escherichia coli

Eubacteria
Fungi
Lactobacillus
Pichia pastoris
Pichia pastoris
Plant cell
Saccharomyces cerevisiae
Schizosaccharomyces pombe
Streptomyces
Yeast
(cloning host; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Detergents
(enzyme-containing; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Detergents
(granular, enzyme-containing; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Polysaccharides, biological studies
RL: BCP (Biochemical process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(hydrolysis of; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Adenoviral vectors
Air analysis
BAC (bacterial artificial chromosome)
Beer
Beverages
Bioinformatics
Bread
Cellulose pulp
Cereal (grain)
Cheese
Codon usage
Combinatorial library
Cosmids
DNA microarray technology
DNA sequences
DNA shuffling
Dairy products
Disinfectants
Dough
Drugs
Feed
Fermentation
Flavoring materials
Food
Food processing
Food texture
Fruit
Genetic engineering
Genomic library
Glycosylation
High throughput screening
Ice cream
Immobilization, molecular or cellular

Immunoassay
Microorganism
Microprojectile bombardment
Milk
Molecular cloning
Mutagenesis
Nucleic acid amplification (method)
Nucleic acid hybridization
Nucleic acid library
PAC (P1-derived artificial chromosome)
PCR (polymerase chain reaction)
Paper
Pelletization
Phagemids
Plasmid vectors
Protein engineering
Protein microarray technology
Protein sequences
Retroviral vectors
Sequence homology analysis
Soil analysis
Thermal stability
Tissue engineering
Transformation, genetic
Vegetable
Viral vectors
Wastewater treatment
Wood
Worts
YAC (yeast artificial chromosome)
(identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Capillary tubes
Cell
Ceramics
Microelectrodes
Microtiter plates
(immobilization support; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Enzymes, biological studies
RL: ANT (Analyte); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); CAT (Catalyst use); FFD (Food or feed use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(immobilized; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Animal cell
(insect, cloning host; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Animal cell
(mammalian, cloning host; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Artificial chromosome
(mammalian; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT RNA
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(microRNA; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(monoclonal, anti-cellulase; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Gamete and Germ cell
(plant, grain germ; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BPN (Biosynthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polyclonal, anti-cellulase; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT Double stranded RNA
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(small interfering; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT 1402-10-4, Lichenin 9004-32-4 9004-34-6, Cellulose, biological studies 9004-62-0, Hydroxyethylcellulose 9012-72-0, Glucan 9034-32-6, Hemicellulose 9041-22-9, β-D-Glucan 37294-28-3, Xyloglucan
RL: BCP (Biochemical process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(hydrolysis of; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT 11132-73-3, Lignocellulose
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(processing of; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

IT 9004-32-4 9004-34-6, Cellulose, biological studies 9004-62-0, Hydroxyethylcellulose 9012-72-0, Glucan 9034-32-6, Hemicellulose 9041-22-9, β-D-Glucan 37294-28-3, Xyloglucan
RL: BCP (Biochemical process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(hydrolysis of; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)

RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (CA INDEX NAME)

CM 1

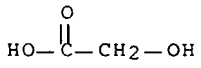
CRN 9004-34-6

CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-62-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether (CA INDEX NAME)

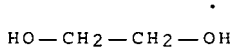
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-21-1
CMF C2 H6 O2



RN 9012-72-0 HCAPLUS
CN D-Glucan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9034-32-6 HCAPLUS
CN Hemicellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9041-22-9 HCAPLUS
CN β-D-Glucan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 37294-28-3 HCAPLUS
CN Glucoxylan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 11132-73-3, Lignocellulose
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(processing of; identification, cloning, sequences and mutagenesis of cellulases from environmental microbes, and pharmaceutical, food and industrial use)
RN 11132-73-3 HCAPLUS
CN Lignocellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 5 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:707123 HCAPLUS Full-text
DOCUMENT NUMBER: 145:161974
TITLE: Porous carbon-based support for immobilization of enzymes and chemical catalysts
INVENTOR(S): Rathenow, Jorg; Kunstmann, Jurgen; Ban, Andreas; Asgari, Soheil
PATENT ASSIGNEE(S): Germany
SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont.-in-part of Appl. No. PCT/EP04/008641.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006160200	A1	20060720	US 2006-343479	20060130
DE 10335130	A1	20050224	DE 2003-10335130	20030731
WO 2005011844	A1	20050210	WO 2004-EP8641	20040802

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

DE 2003-10335130	A	20030731
WO 2004-EP8641	A2	20040802
WO 2004-EP77	A	20040108

AB The present invention relates to the use of porous carbon-based bodies for the support and/or immobilization of catalytically active units, such as enzymes, metals, metal oxides, alloys, or organometallic complexes. Catalytically active units for chemical and/or biol. reactions may be essentially immobilized on such supporting bodies. The catalyst units can comprise catalytically active units and porous carbon-based supporting bodies. The present invention further relates to reactors comprising these catalyst units and their use in chemical and biol. reactions.

INCL 435177000; 422222000; 435299100
CC 7-7 (Enzymes)
Section cross-reference(s): 38, 57, 67
IT Enzymes, uses
RL: CAT (Catalyst use); USES (Uses)
(immobilized; porous carbon-based support for immobilization of enzymes

and chemical catalysts)
IT Bioreactors
Bottles
Capillary tubes
Carbonization
Catalyst supports
Catalysts
Ceramics
Coating materials
Coating process
Containers
Corrugated surface
Disks
Immobilization, molecular or cellular
Laminated materials
Lamination
Paper
Pipes and Tubes
Pore size
Pore size distribution
Porous materials
Reactors
Textiles
(porous carbon-based support for immobilization of enzymes and chemical catalysts)
IT 9002-84-0 9002-85-1 9002-88-4 9003-07-0 9004-34-6, Cellulose, uses 9004-35-7 9004-70-0 9015-12-7 25014-41-9, Polyacrylonitrile 25067-54-3 114528-74-4, Poly(methyloctylsilylene)
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(semipermeable membrane; porous carbon-based support for immobilization of enzymes and chemical catalysts)
IT 9004-34-6, Cellulose, uses 9004-35-7 9004-70-0
RL: CPS (Chemical process); DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(semipermeable membrane; porous carbon-based support for immobilization of enzymes and chemical catalysts)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-35-7 HCAPLUS
CN Cellulose, acetate (CA INDEX NAME)

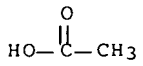
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-19-7
CMF C2 H4 O2



RN 9004-70-0 HCAPLUS
CN Cellulose, nitrate (CA INDEX NAME)

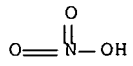
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7697-37-2
CMF H N O3



L38 ANSWER 6 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:657328 HCAPLUS Full-text
DOCUMENT NUMBER: 145:110211
TITLE: Photochemical activation of surfaces for attaching biomaterial
INVENTOR(S): Alferiev, Ivan; Fishbein, Ilia; Chorny, Michael; Levy, Robert J.; Yellen, Benjamin; Williams, Darryl
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 66 pp., Cont.-in-part of Appl. No. PCT/US2004/11861.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006147413	A1	20060706	US 2005-250877	20051014
WO 2004093643	A2	20041104	WO 2004-US11861	20040416

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,

SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-545127P P 20040217
WO 2004-US11861 A2 20040416
US 2003-463505P P 20030416
US 2004-546233P P 20040220

AB A shortcoming of implantable medical devices or surfaces is recognition of these devices by an organism as foreign objects followed by inflammation or even rejection. Surface modification science enables creation of a better interface between a living tissue and a solid matrix. Biodegradable polyester-based nanoparticles can be prepared with strictly controlled size and narrow size distribution. Such particles are suitable as injectable drug and gene carriers. Examples are provided of photoactivatable polymeric particles comprising a biomaterial such as an antibody and of methods for magnetic field-assisted delivery of the injectable/implantable materials. Applications such as cell growth-inhibitory effects of nanoparticles modified with D1 domain of CAR and adenoviral vector encoding inducible nitric oxide synthase are also provided.

INCL 424078270; 424078300; 525279000
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 3
IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(A; photoactivated polymer nanoparticles for drug and gene delivery)
IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CAR (coxsackie adenovirus receptor); photoactivated polymer nanoparticles for drug and gene delivery)
IT Antibodies and Immunoglobulins
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(IgG; photoactivated polymer nanoparticles for drug and gene delivery)
IT Drug delivery systems
(carriers; photoactivated polymer nanoparticles for drug and gene delivery)
IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(green fluorescent; photoactivated polymer nanoparticles for drug and gene delivery)
IT Carboxylic acids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(hydroxy, polymers; photoactivated polymer nanoparticles for drug and gene delivery)
IT Adenoviral vectors
Angiogenesis inhibitors
Anti-inflammatory agents
Antibiotics
Antimicrobial agents
Antioxidants
Antitumor agents
Chelating agents
Gene expression
Gene therapy
Genetic vectors
Human
Imaging agents
Immobilization, molecular or cellular
Magnetic field
Particle size

Radical scavengers
Surface treatment
Transduction, genetic
(photoactivated polymer nanoparticles for drug and gene delivery)

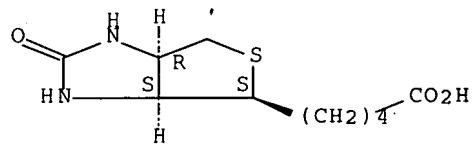
IT Antibodies and Immunoglobulins
Avidins
Growth factors, animal
Hormones, animal, biological studies
Oligonucleotides
Peptides, biological studies
Polyamides, biological studies
Polyesters, biological studies
Polyurethanes, biological studies
Proteins
Radionuclides, biological studies
Receptors
Rubber, biological studies
Silicone rubber, biological studies
Steroids, biological studies
Transferrin receptors
Transferrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(photoactivated polymer nanoparticles for drug and gene delivery)

IT 58-85-5, Biotin 67-68-5, Dimethyl sulfoxide, biological studies 1309-38-2, Magnetite, biological studies 9002-98-6, Polyethylenimine 9003-01-4, Polyacrylic acid 9003-01-4D, Polyacrylic acid, derivs. 9003-53-6, Polystyrene 9004-10-8, Insulin, biological studies 10102-43-9, Nitric oxide, biological studies 12134-66-6, Maghemite 24980-41-4, Poly(ε-caprolactone) 25014-41-9, Polyacrylonitrile 25087-26-7, Polymethacrylic acid 25248-42-4, Poly[oxy(1-oxo-1,6-hexanediyl)] 26009-03-0, Polyglycolic acid 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Polylactic acid 26124-68-5, Polyglycolic acid 26780-50-7, Lactide-glycolide copolymer 31621-87-1, Polydioxanone
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(photoactivated polymer nanoparticles for drug and gene delivery)

IT 58-85-5, Biotin 9003-01-4, Polyacrylic acid 9003-01-4D, Polyacrylic acid, derivs.
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(photoactivated polymer nanoparticles for drug and gene delivery)

RN 58-85-5 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-, (3aS,4S,6aR)- (CA INDEX NAME)

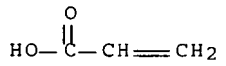
Absolute stereochemistry. Rotation (+).



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

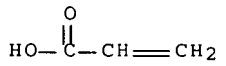
CRN 79-10-7
CMF C3 H4 O2



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



L38 ANSWER 7 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:333355 HCAPLUS Full-text
DOCUMENT NUMBER: 144:327374
TITLE: Analyte detecting member with a hydrogel
INVENTOR(S): Bartetzko, Norbert; Specht, Bernfried; Bartetzko, Robert
PATENT ASSIGNEE(S): Albatros Technologies Gmbh & Co. KG, Germany
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006027703	A2	20060316	WO 2005-IB3787	20050909
WO 2006027703	A9	20060608		
WO 2006027703	A3	20070419		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2004-609168P P 20040909

AB Methods and apparatus are provided for an analyte detecting device. In one embodiment, the apparatus comprises a substrate; a plurality of conductive lines on said substrate; an insulating layer on said substrate; at least one working electrode and at least one counter electrode, each coupled to at least one conductive line; a cover film; and a support layer; a PSA layer, wherein the detecting member is masked to reduce the volume used for the detecting member. The device may be a hydrogel based analyte detecting member for use in spot monitoring glucose levels in blood.

IC ICM G01N

CC 9-1 (Biochemical Methods)

IT Analytical apparatus
Antifoaming agents
Buffers
Composition
Configuration
Crosslinking agents
Diffusion
Drilling
Electric conductivity
Electric insulators
Electric resistance
Hydrogels
Interconnections, electric
Lids
Materials
Membranes, nonbiological
Polymerization catalysts
Pressure
Printing (impact)
Screen printing
Screens (mesh)
Solutions
Surface
Swelling, physical
Test kits
Volume
Zwitterions
(analyte detecting member with a hydrogel)

IT Enzymes, uses
RL: ARG (Analytical reagent use); DEV (Device component use); ANST (Analytical study); USES (Uses)
(analyte detecting member with a hydrogel)

IT Immobilization, molecular or cellular
(enzyme, entrapment; analyte detecting member with a hydrogel)

IT 7440-06-4, Platinum, uses 9002-86-2, Pvc 9004-35-7
RL: DEV (Device component use); USES (Uses)
(analyte detecting member with a hydrogel)

IT 9002-93-1, Triton X-100 9003-01-4, PAA 9003-39-8, PVP 75621-03-3, CHAPS
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(analyte detecting member with a hydrogel)

IT 9004-35-7
RL: DEV (Device component use); USES (Uses)
(analyte detecting member with a hydrogel)

RN 9004-35-7 HCAPLUS

CN Cellulose, acetate (CA INDEX NAME)

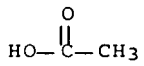
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

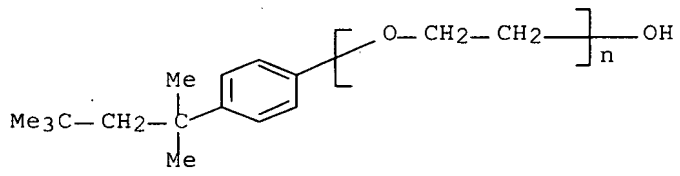
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-19-7
CMF C2 H4 O2



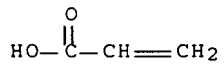
IT 9002-93-1, Triton X-100 9003-01-4, PAA
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(analyte detecting member with a hydrogel)
RN 9002-93-1 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[4-(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy- (CA INDEX NAME)



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



L38 ANSWER 8 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:1350766 HCAPLUS Full-text
DOCUMENT NUMBER: 144:83622
TITLE: Compositions and methods for diagnosis and treatment of orthopox viruses

INVENTOR(S): Slifka, Mark; Yoshihara, Paul; Hammarlund, Erika
PATENT ASSIGNEE(S): Oregon Health and Science University, USA
SOURCE: PCT Int. Appl., 113 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123966	A2	20051229	WO 2005-US20807	20050613
WO 2005123966	A3	20070308		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2005255019	A1	20051229	AU 2005-255019	20050613
CA 2570296	A1	20051229	CA 2005-2570296	20050613
EP 1781826	A2	20070509	EP 2005-760370	20050613
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU				

PRIORITY APPLN. INFO.: US 2004-579048P P 20040612
WO 2005-US20807 W 20050613

AB In particular aspects, the invention provides a novel approach for the systematic anal. and identification of biol. relevant epitopes (SABRE). SABRE-identified polypeptides have diagnostic (e.g., polypeptide arrays, etc.) and/or therapeutic (e.g., vaccines, etc.) utility, and utility for developing monoclonal antibodies having diagnostic and/or therapeutic utility (e.g. for detecting and/or preventing orthopoxvirus infection). Preferred aspects provide high-throughput assays for detecting specific orthopoxvirus infection, for detecting orthopoxvirus-specific immune response, or for dual (parallel) determination of both orthopoxvirus immune response and orthopoxvirus infection. Addnl. preferred and surprising aspects provide novel high-throughput methods for detecting 'protective immunity' against orthopoxviruses (e.g., for detecting protective immunity against smallpox virus and monkeypox virus), based on anti-vaccinia virus serum antibody levels. The inventive diagnostic assays are rapid, high-throughput and suitable for 'point-of-care' implementations.

IC ICM C12Q001-70
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 10, 13, 15
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(B18R, of monkeypox virus; compns. and methods for diagnosis and treatment of orthopox viruses)
IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study);

BIOL (Biological study); USES (Uses)
(B21R, of monkeypox virus; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(D2L, of monkeypox virus; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(N2R, of monkeypox virus; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Proteins
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(N3R, of monkeypox virus; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Drug delivery systems
(carriers, diluent; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(chimeric, to monkeypox virus polypeptides or epitopes; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(fragments, Fab, to monkeypox virus polypeptides or epitopes; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(humanized, to monkeypox virus polypeptides or epitopes; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, to monkeypox virus polypeptides or epitopes; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Protein sequences
(of monkeypox virus polypeptides or epitopes; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Immobilization, molecular or cellular
(of peroxide-treated vaccinia virus; compns. and methods for diagnosis and treatment of orthopox viruses)

IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); DGN (Diagnostic use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(single chain, to monkeypox virus polypeptides or epitopes; compns. and methods for diagnosis and treatment of orthopox viruses)

IT 7429-90-5, Aluminum, uses 7439-89-6, Iron, uses 7440-02-0, Nickel, uses 7440-21-3, Silicon, uses 7440-22-4, Silver, uses 7440-50-8, Copper, uses 7440-57-5, Gold, uses 9003-05-8, Polyacrylamide 9003-53-6, Polystyrene 9004-34-6, Cellulose, uses 12597-69-2, Steel, uses

RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(compns. and methods for diagnosis and treatment of orthopox viruses)
IT 9004-34-6, Cellulose, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(compns. and methods for diagnosis and treatment of orthopox viruses)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 9 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:638756 HCAPLUS Full-text
DOCUMENT NUMBER: 143:151869
TITLE: Complexes comprising acrylate polymer, anti-infective or cytotoxic agent, and antigen or tumor antigen for treating infection or cancer
INVENTOR(S): Shaunak, Sunil; Brocchini, Stephen; Godwin, Antony; Choi, Ji-Won
PATENT ASSIGNEE(S): Polytherics Limited, UK
SOURCE: PCT Int. Appl., 141 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005065712	A2	20050721	WO 2005-GB39		20050107
WO 2005065712	A3	20060427			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2005203908	A1	20050721	AU 2005-203908		20050107
EP 1701741	A2	20060920	EP 2005-701809		20050107
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU					
CN 1909928	A	20070207	CN 2005-80002089		20050107
JP 2007518732	T	20070712	JP 2006-548383		20050107
PRIORITY APPLN. INFO.:			GB 2004-264	A	20040107
			WO 2005-GB39	W	20050107

AB A complex that comprises a narrow mol. weight distribution polymer that includes units derived from an acrylic acid or a salt thereof, and (i) a substance that has pharmacol. activity against a pathogenic organism, or (ii) a substance that has pharmacol. activity against a cancer, or (iii) one or more agents selected from antigens and immunogens is useful in treating and/or inducing immunity to the pathogenic organism or the cancer, and for inducing immunity to the antigen or immunogen. The vaccine-adjuvant complexes are prepared to treat infection (i.e. viral, fungal, bacterial or parasitic infection) and cancer.
IC ICM A61K045-00

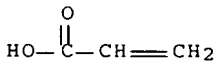
CC 15-2 (Immunochemistry)
Section cross-reference(s): 1, 63
IT Polymerization
Polymerization catalysts
(atom transfer, radical; complexes comprising acrylate polymer, anti-infective or cytotoxic agent, and antigen or tumor antigen for treating infection or cancer)
IT Drug delivery systems
(carriers; complexes comprising acrylate polymer, anti-infective or cytotoxic agent, and antigen or tumor antigen for treating infection or cancer)
IT AIDS (disease)
Absidia
Anti-infective agents
Antibacterial agents
Antigen-presenting cell
Antitumor agents
Antiviral agents
Aspergillus
Aspergillus flavus
Aspergillus fumigatus
Aspergillus niger
Blastomyces dermatitidis
Bordetella pertussis
Candida
Candida albicans
Candida glabrata
Candida tropicalis
Cholera
Coccidioides immitis
Cryptococcus neoformans
Cryptococcus neoformans gattii
Cytotoxic agents
Dendritic cell
Diphtheria
Drugs
Fungicides
Fusarium
Histoplasma capsulatum capsulatum
Histoplasma capsulatum duboisii
Human
Human T-lymphotropic virus
Human herpesvirus
Human immunodeficiency virus
Hydrolysis
Infection
Influenza
Leishmania donovani
Leishmania mexicana
Leprosy
Macrophage
Malaria
Microorganism
Monocyte
Mycobacterium
Mycobacterium leprae
Mycobacterium tuberculosis
Mycosis
Mycosis
Neisseria meningitidis

Neoplasm
Paracoccidioides brasiliensis
Parasiticides
Penicillium marneffei
Plasmodium falciparum
Plasmodium malariae
Plasmodium ovale
Plasmodium vivax
Pneumocystis carinii
Poliomyelitis
Rabies
Rhizomucor
Rhizopus
Rubella
Salmonella typhi
Schistosoma
Schistosoma haematobium
Schistosoma intercalatum
Schistosoma japonicum
Schistosoma mansoni
Schistosoma mekongi
Scytalidium
Seborrhea
Sporothrix
Sporotrichum
Streptococcus pneumoniae
Tetanus
Tinea (skin disease)
Tinea (skin disease)
Toxoplasma gondii
Trichosporon
Trypanosoma brucei
Trypanosoma cruzi
Trypanosoma gambiense
Tuberculosis
Typhoid fever
(complexes comprising acrylate polymer, anti-infective or cytotoxic agent, and antigen or tumor antigen for treating infection or cancer)

IT 79-10-7D, Acrylic acid, salts and polymers
1397-89-3, Amphotericin B 9003-01-4D, Poly(acrylic acid), derivs. 25087-26-7, Poly(methacrylic acid) 37047-90-8, Poly-N-methacryloxysuccinimide
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes comprising acrylate polymer, anti-infective or cytotoxic agent, and antigen or tumor antigen for treating infection or cancer)

IT 79-10-7D, Acrylic acid, salts and polymers
1397-89-3, Amphotericin B 9003-01-4D, Poly(acrylic acid), derivs.
RL: BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes comprising acrylate polymer, anti-infective or cytotoxic agent, and antigen or tumor antigen for treating infection or cancer)

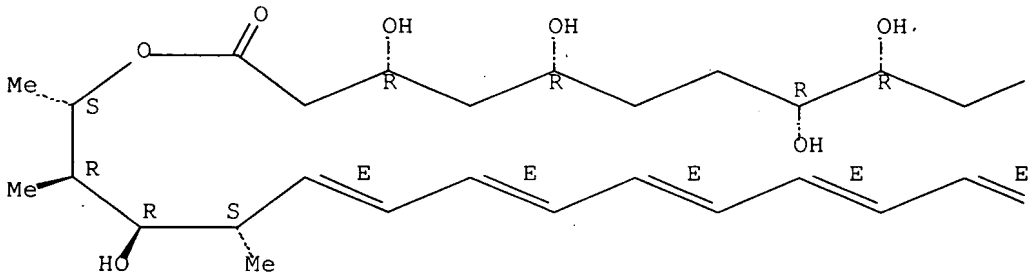
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (CA INDEX NAME)



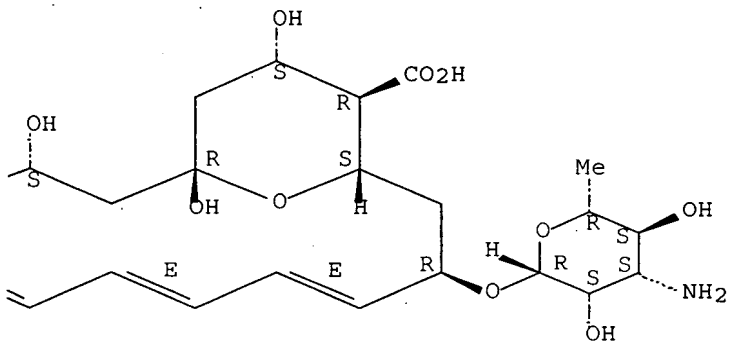
RN 1397-89-3 HCAPLUS
CN Amphotericin B (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



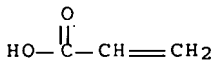
PAGE 1-B



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



L38 ANSWER 10 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:429536 HCAPLUS Full-text
DOCUMENT NUMBER: 142:477994
TITLE: Purification, cloning and sequence of high temperature and alkaline stable catalase from Thermus brockianus and the use of the immobilized catalase for bleaching of pulp, paper or textile
INVENTOR(S): Thompson, Vicki S.; Apel, William A.; Schaller, Kastli D.
PATENT ASSIGNEE(S): Bechtel BWXT Idaho, LLC, USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005044994	A2	20050519	WO 2004-US36741	20041103
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2543442	A1	20050519	CA 2004-2543442	20041103
US 2005112742	A1	20050526	US 2004-981434	20041103
EP 1680500	A2	20060719	EP 2004-810312	20041103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR, IS, YU				

PRIORITY APPLN. INFO.: US 2003-517976P P 20031105
WO 2004-US36741 W 20041103

AB The invention relates to thermal and pH stable catalases. One catalase of the invention was purified and characterized from Thermus brockianus. As a part of the characterization, the enzyme was compared to typical catalases from com. sources and found to be significantly more thermal/alkaline stable than these other enzymes. The catalase purified from T. brockianus consists of four identical subunits having a mol. mass of approx. 42.5 kDa, for a total mol. mass of approx. 178 kDa. The nucleotide sequence and the encoded amino acid sequence of the T. brockianus catalase are provided. The immobilized catalase of T. brockianus can be used for bleaching of pulp, paper or textile.

IC ICM C12N
CC 7-2 (Enzymes)
Section cross-reference(s): 3, 10, 40, 43
IT Oxidation catalysts
(catalase as; purification, cloning and sequence of extremely

thermo-alkali-stable catalase from Thermus brockianus and use of immobilized catalase for bleaching of pulp, paper or textile)

IT Enzymes, preparation
RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(immobilized; purification, cloning and sequence of extremely thermo-alkali-stable catalase from Thermus brockianus and use of immobilized catalase for bleaching of pulp, paper or textile)

IT Coordination sphere
Cytolysis
DNA sequences
Enzyme kinetics
Fermentation
Hydrophobic interaction chromatography
Immobilization, molecular or cellular
Ion exchange liquid chromatography
Michaelis constant
Microorganism
Molecular cloning
Paper
Protein sequences
Pulp bleaching
Size-exclusion chromatography
Stability
Textiles
Thermal stability
Thermus brockianus
(purification, cloning and sequence of extremely thermo-alkali-stable catalase from Thermus brockianus and use of immobilized catalase for bleaching of pulp, paper or textile)

IT Microorganism
(thermophilic; purification, cloning and sequence of extremely thermo-alkali-stable catalase from Thermus brockianus and use of immobilized catalase for bleaching of pulp, paper or textile)

IT 9004-32-4, Carboxymethylcellulose 9004-34-6, Cellulose, uses 9004-34-6D, Cellulose, derivs. 9004-54-0, Dextran, uses 9012-36-6, Agarose 9012-76-4, Chitosan 101239-42-3, Eupergit
RL: NUU (Other use, unclassified); USES (Uses)
(immobilization support; purification, cloning and sequence of extremely thermo-alkali-stable catalase from Thermus brockianus and use of immobilized catalase for bleaching of pulp, paper or textile)

IT 9004-32-4, Carboxymethylcellulose 9004-34-6, Cellulose, uses 9004-34-6D, Cellulose, derivs. 9004-54-0, Dextran, uses 9012-36-6, Agarose 9012-76-4, Chitosan
RL: NUU (Other use, unclassified); USES (Uses)
(immobilization support; purification, cloning and sequence of extremely thermo-alkali-stable catalase from Thermus brockianus and use of immobilized catalase for bleaching of pulp, paper or textile)

RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (CA INDEX NAME)

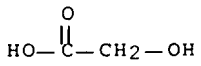
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-36-6 HCAPLUS
CN Agarose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 11 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:323999 HCAPLUS Full-text
DOCUMENT NUMBER: 142:386021
TITLE: Peptide with osteogenic activity, and therapeutic use
INVENTOR(S): Dhanaraj, Sridevi; Gosiewska, Anna; Rezania, Ali; Heavner, George A.; Lin, Xuanhan; Yi, Chin-Feng
PATENT ASSIGNEE(S): Ethicon, Inc., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005032461	A2	20050414	WO 2004-US29649	20040910
WO 2005032461	A3	20050707		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,

SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005187162	A1	20050825	US 2003-674516	20030930
US 7163920	B2	20070116		

PRIORITY APPLN. INFO.: US 2003-674516 A 20030930

OTHER SOURCE(S): MARPAT 142:386021

AB The invention provides a composition including an isolated or recombinant peptide component that has osteogenic cell proliferative activity. The peptide, which promotes proliferation of osteoblasts, is useful for treatment of fractures, as a filler in deficient sites of bone, for inhibition of decrease in bone substance related to osteoporosis and periodontic diseases, and for prevention of fractures associated with osteoporosis and rheumatoid arthritis. The peptide, or cells that have been genetically engineered to produce the peptide, can be combined with a bone-compatible matrix to facilitate slow release of the peptide to a treatment site and/or provide a structure for developing bone.

IC ICM A61K

CC 1-12 (Pharmacology)
Section cross-reference(s): 63

IT Antibodies and Immunoglobulins
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(anti-peptide, in treatment monitoring; peptide with osteogenic activity, and therapeutic use)

IT Drug delivery systems
(carriers; peptide with osteogenic activity, and therapeutic use)

IT Bone, disease
(craniofacial anomalies; peptide with osteogenic activity, and therapeutic use)

IT Animal tissue
(decellularized; peptide with osteogenic activity, and therapeutic use)

IT Bone, disease
(demineralization; peptide with osteogenic activity, and therapeutic use)

IT Bone
(demineralized bone matrix; peptide with osteogenic activity, and therapeutic use)

IT Bone, disease
(fracture; peptide with osteogenic activity, and therapeutic use)

IT Bone
(matrix; peptide with osteogenic activity, and therapeutic use, and use with other agents)

IT Stem cell
(mesenchymal; peptide with osteogenic activity, and therapeutic use)

IT Bone
(osteoinductive composition; peptide with osteogenic activity, and therapeutic use)

IT Bone marrow
(osteoprogenitor cell; peptide with osteogenic activity, and therapeutic use)

IT Bone, disease
Cell differentiation
Ceramics
Chondrocyte
Drug delivery systems
Fibroblast
Human
Hydrogels
Immobilization, molecular or cellular

Microfibers
Osteoblast
Osteoporosis
Preservatives
Rheumatoid arthritis
Solubilizers
Stabilizing agents
Thickening agents
(peptide with osteogenic activity, and therapeutic use)

IT Proteins
RL: PAC (Pharmacological activity); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use)

IT Glycosaminoglycans, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use)

IT Polyoxyalkylenes, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use)

IT Polysaccharides, biological studies
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use)

IT Bone morphogenetic proteins
Cytokines
Enzymes, biological studies
Growth factors, animal
Hormones, animal, biological studies
Platelet-derived growth factors
Transforming growth factors
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use, and use with other agents)

IT Basement membrane
(reconstituted basement membrane matrixes; peptide with osteogenic activity, and therapeutic use)

IT Mesenchyme
(stem cell; peptide with osteogenic activity, and therapeutic use)

IT 1306-06-5, Hydroxyapatite 1398-61-4, Chitin 7758-87-4, Tricalcium phosphate 7778-18-9, Calcium sulfate 9004-34-6, Cellulose, biological studies 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 9012-36-6, Agarose 9012-76-4, Chitosan 24980-41-4, Polycaprolactone 25248-42-4, Polycaprolactone 25322-68-3, Polyethylene glycol 26009-03-0, Poly(glycolic acid) 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26100-51-6, Poly(lactic acid) 26124-68-5, Poly(glycolic acid) 31621-87-1, Polydioxanone
RL: TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use)

IT 1398-61-4, Chitin 9004-34-6, Cellulose, biological studies 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-25-8, Starch, biological studies 9005-32-7, Alginic acid 9012-36-6, Agarose 9012-76-4, Chitosan 25322-68-3, Polyethylene glycol
RL: TEM (Technical or engineered material use); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)
(peptide with osteogenic activity, and therapeutic use)
RN 1398-61-4 HCAPLUS
CN Chitin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

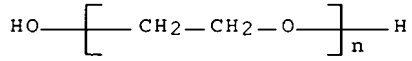
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-36-6 HCAPLUS
CN Agarose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L38 ANSWER 12 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:1080922 HCAPLUS Full-text
DOCUMENT NUMBER: 142:43842
TITLE: Lectin-lanthanoid conjugates for targeted delivery
INVENTOR(S): Keppler, Bernhard; Debbage, Paul; Buchberger, Wolfgang
PATENT ASSIGNEE(S): Faustus Forschungs Cie. Translational Cancer Research G.m.b.H., Germany
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2004108747	A2	20041216	WO 2004-EP6141	20040607
WO 2004108747	A3	20050324		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10325752	A1	20041230	DE 2003-10325752	20030606
EP 1635879	A2	20060322	EP 2004-739672	20040607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2006527182	T	20061130	JP 2006-508288	20040607
US 2006251580	A1	20061109	US 2005-294963	20051206
PRIORITY APPLN. INFO.:			DE 2003-10325752 A	20030606
			WO 2004-EP6141 W	20040607

AB The invention relates to a conjugate comprising at least one target-seeking unit, which bonds specifically to receptors on the surface of endothelial cells, and at least one effector unit coupled to said unit by means of a linker. The effector unit has at least one signal unit and optionally at least one therapeutic active ingredient and the target-seeking unit comprises a lectin or a fragment or derivative thereof. The lectin is not L-selectin and the signal unit contains a lanthanoid ion. Thus nitriloacetic acid gadolinate trisodium salt was prepared and coupled to diethylene triaminopenataacetic acid-conjugated LEA lectin, DTPA-LEA. The conjugate was encapsulated in polystyrene latex and administered to mice.

IC ICM C07K

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 8

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(LEA, conjugate with nitriloacetic acid gadolinate via DTPA; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: RCT (Reactant); RACT (Reactant or reagent)
(Lycopersicon esculentum agglutinin, LEA; lectin-lanthanoid conjugates for targeted delivery)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SU (surface), 4Ff2, target; lectin-lanthanoid conjugates for targeted delivery)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(SU (surface), EndoGlyx-1, target; lectin-lanthanoid conjugates for targeted delivery)

IT Drug delivery systems
(carriers; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(from peanut, orange peel, Maclura pomifera, Dolichus biflorus and soybean, excluded; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins

RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(fucose-binding, Ulex europaeus agglutinin-1, UEA-1; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(galactose-binding, GSA-1B4; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(human, LOX-1; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(human, endoglyx; lectin-lanthanoid conjugates for targeted delivery)

IT Antibiotics
Antitumor agents
Endothelium
Genetic vectors
Human
Immobilization, molecular or cellular
Tumor markers
(lectin-lanthanoid conjugates for targeted delivery)

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(lectin-lanthanoid conjugates for targeted delivery)

IT Coordination compounds
Fusion proteins (chimeric proteins)
Growth factors, animal
Hormones, animal, biological studies
Radionuclides, biological studies
Thrombomodulin
Toxins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mannose-binding; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(of viral, bacterial, plant, animal and human origin; lectin-lanthanoid conjugates for targeted delivery)

IT Albumins, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(serum, bovine, conjugate with DTPA; lectin-lanthanoid conjugates for targeted delivery)

IT Albumins, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(serum, bovine; lectin-lanthanoid conjugates for targeted delivery)

IT Agglutinins and Lectins
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study);

USES (Uses)
(sialic acid-binding, LFA; lectin-lanthanoid conjugates for targeted delivery)
IT Transport proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(sialin, endosialins, target; lectin-lanthanoid conjugates for targeted delivery)
IT 9012-76-4, Chitosan
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(encapsulation; lectin-lanthanoid conjugates for targeted delivery)
IT 60-00-4D, EDTA, lectin-conjugated 70-51-9D, Deferoxamine, lectin-conjugated 7440-53-1, Europium, biological studies 7440-54-2, Gadolinium, biological studies 9004-54-0D, Dextran, lectin-conjugate coupled 11028-71-0, ConA 25104-18-1D, Polylysine, lectin-conjugate coupled 38000-06-5D, Polylysine, lectin-conjugate coupled 60239-18-1D, DOTA, lectin-conjugated
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lectin-lanthanoid conjugates for targeted delivery)
IT 9012-76-4, Chitosan
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(encapsulation; lectin-lanthanoid conjugates for targeted delivery)
RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 9004-54-0D, Dextran, lectin-conjugate coupled
RL: DGN (Diagnostic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lectin-lanthanoid conjugates for targeted delivery)
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 13 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:824796 HCAPLUS Full-text
DOCUMENT NUMBER: 141:320084
TITLE: Polymer gels for encapsulation of biological materials
INVENTOR(S): Hubbell, Jeffrey A.; Pathak, Chandrashekhar P.; Sawhney, Amarpreet S.; Desai, Neil P.; Hossainy, Syed F. A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp., Cont.-in-part of U.S. Ser. No. 811,901, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 13
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004195710	A1	20041007	US 2004-761180	20040120
US 5529914	A	19960625	US 1992-958870	19921007
US 6258870	B1	20010710	US 1997-783387	19970113
US 6231892	B1	20010515	US 1997-969910	19971113
US 2002058318	A1	20020516	US 2001-811901	20010319

US 6911227	B2	20050628		
US 2007100015	A1	20070503	US 2006-644606	20061222
PRIORITY APPLN. INFO.:			US 1990-598880	B2 19901015
			US 1992-843485	B2 19920228
			US 1992-870540	B2 19920420
			US 1992-958870	A3 19921007
			US 1995-484160	B3 19950607
			US 1997-783387	A1 19970113
			US 2001-811901	B2 20010319
			US 1991-740632	A3 19910805
			US 1991-740703	A2 19910805
			US 1994-336393	A3 19941110
			US 2004-761180	A3 20040120

AB This invention provides novel methods for the formation of biocompatible membranes around biol. materials using photopolymn. of water soluble mols. The membranes can be used as a covering to encapsulate biol. materials or biomedical devices, as a "glue" to cause more than one biol. substance to adhere together, or as carriers for biol. active species. Several methods for forming these membranes are provided. Each of these methods utilizes a polymerization system containing water-soluble macromers, species, which are at once polymers and macromols. capable of further polymerization The macromers are polymerized using a photoinitiator (such as a dye), optionally a cocatalyst, optionally an accelerator, and radiation in the form of visible or long wavelength UV light. The reaction occurs either by suspension polymerization or by interfacial polymerization The polymer membrane can be formed directly on the surface of the biol. material, or it can be formed on material, which is already encapsulated. For example, the microcapsule interfacial polymerization method was used to form membrane around alginate-poly(L-lysine) (PLL) microcapsules containing islets. Alginate-PLL coacervated microspheres, containing one or two human pancreatic islets each, were suspended in a 1.1% CaCl2 solution and aspirated free of excess solution to obtain a dense plug of microspheres. A solution of ethyl eosin (0.04% weight/volume) was prepared in a 1.1% CaCl2 solution and filter-sterilized. The plug of microspheres was suspended in 10 mL of the eosin solution for 2 min to allow uptake of the dye and excess dye. was removed. A solution of PEG 18.5 tetraacrylate (2 mL; 23% weight/volume) containing 100 L of a 3.5% weight/volume solution of triethanolamine in HEPES buffered saline was added to 0.5 mL of those microspheres. The microspheres were exposed to argon ion laser light for 30 s with periodic agitation, washed with calcium solution and the process was repeated in order to further stabilize the coating. A static glucose stimulation test (SGS) confirmed the vitality and functionality of the islets.

IC ICM B67C003-00
INCL 264004100; 427213300
CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 35
IT Lymphoblast
(T-cell; T-lymphoblast cells infected with HIV virus encapsulation with polymer gel for evaluation of anti-AIDS drugs)
IT Erythrocyte
(artificial, Hb encapsulation for; photopolymn. of water-soluble macromers for encapsulation of biol. materials)
IT Enzymes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immobilization of, in PEG diacrylate gel; photopolymn. of water-soluble macromers for encapsulation of biol. materials)
IT Animal cell
Coating materials
Crosslinking agents
Fibroblast

Gelation
Gels
Human
Hydrophilicity
Immobilization, molecular or cellular
Membrane, biological
Microcapsules
Pancreatic islet of Langerhans
Prosthetic materials and Prosthetics
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)

IT Macromonomers
Polyoxyalkylenes, reactions
Polysaccharides, reactions
Proteins
RL: RCT (Reactant); RACT (Reactant or reagent)
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)

IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)

IT Polymerization
Polymerization catalysts
(photopolymn.; photopolymn. of water-soluble macromers for encapsulation of biol. materials)

IT 26570-48-9P, Polyethylene glycol diacrylate 178402-40-9P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(macromer; photopolymn. of water-soluble macromers for encapsulation of biol. materials)

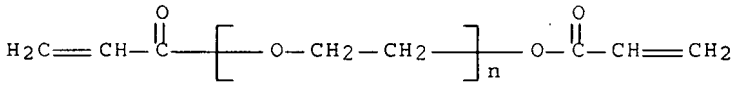
IT 9002-89-5, Polyvinyl alcohol 9003-39-8, Polyvinylpyrrolidone 25322-68-3, Polyethylene glycol 25805-17-8, Polyethyloxazoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)

IT 9000-07-1, Carrageenan 9000-30-0, Guar gum 9004-34-6D, Cellulose, derivs. 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-32-7, Alginic acid 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9012-76-4, Chitosan 9042-14-2, Dextran sulfate 9050-30-0, Heparan sulfate 11138-66-2, Xanthan gum 71010-52-1, Gellan gum
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)

IT 26570-48-9P, Polyethylene glycol diacrylate
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(macromer; photopolymn. of water-soluble macromers for encapsulation of biol. materials)

RN 26570-48-9 HCAPLUS

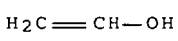
CN Poly(oxy-1,2-ethanediyl), α-(1-oxo-2-propen-1-yl)-ω-[(1-oxo-2-propen-1-yl)oxy]- (CA INDEX NAME)



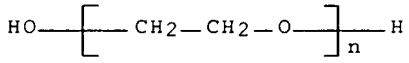
IT 9002-89-5, Polyvinyl alcohol 25322-68-3, Polyethylene glycol
RL: RCT (Reactant); RACT (Reactant or reagent)
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)
RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IT 9000-07-1, Carrageenan 9000-30-0, Guar gum 9004-34-6D, Cellulose, derivs. 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-32-7, Alginic acid 9005-49-6, Heparin, biological studies 9007-28-7, Chondroitin sulfate 9012-76-4, Chitosan 9042-14-2, Dextran sulfate 11138-66-2, Xanthan gum 71010-52-1, Gellan gum
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(photopolymn. of water-soluble macromers for encapsulation of biol. materials)
RN 9000-07-1 HCAPLUS
CN Carrageenan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9000-30-0 HCAPLUS
CN Guar gum (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS

CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-49-6 HCAPLUS
CN Heparin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (CA INDEX NAME)

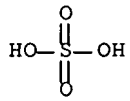
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9042-14-2 HCAPLUS
CN Dextran, hydrogen sulfate (CA INDEX NAME)

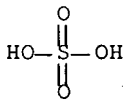
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 11138-66-2 HCAPLUS
CN Xanthan gum (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 71010-52-1 HCAPLUS
CN Gellan gum (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 14 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:513130 HCAPLUS Full-text
DOCUMENT NUMBER: 141:50098
TITLE: Self-calibrated flow-through assay devices
INVENTOR(S): Wei, Ning; Huang, Yanbin; Song, Xuedong; Kaylor, Rosann
PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004121334	A1	20040624	US 2002-325429	20021219
CA 2508285	A1	20040722	CA 2003-2508285	20031029
WO 2004061455	A1	20040722	WO 2003-US34544	20031029
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003287309	A1	20040729	AU 2003-287309	20031029
EP 1573330	A1	20050914	EP 2003-781542	20031029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1720456	A	20060111	CN 2003-80105275	20031029
TW 249032	B	20060211	TW 2003-92133143	20031126
MX 2005PA05950	A	20050818	MX 2005-PA5950	20050603

PRIORITY APPLN. INFO.:			
US 2002-325429	A	20021219	
WO 2003-US34544	W	20031029	

AB An internal, self-calibrated system for flow-through assay devices is provided. In particular, the present invention employs the use of a single calibration/detection zone defined by a porous membrane of the assay. It has been discovered that the internal, self-calibrated system provides an

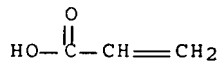
accurate, inexpensive, and readily controllable method of determining the presence of an analyte in a test sample. Sandwich immunoassays for detection of C-reactive protein (CRP) used immobilized polyacrylic acid-5-(and 6-)-((N-(5-aminopentyl)amino)-carbonyl)tetramethylrhodamine and CelQuat 100-H and immobilized monoclonal antibody to CRP in an internal detection/calibration zone of the assay device. The dipsticks were put into CRP sample solns. containing anti-CRP monoclonal antibody-fluorescent bead conjugates. The fluorescent intensity was measured at the detection/calibration line using a Fluorolog III spectrofluorometer with a right angle mode.

IC ICM C12Q001-68
ICS C12M001-34
INCL 435006000; X43-528.72
CC 9-1 (Biochemical Methods)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, conjugates, with fluorescent beads; self-calibrated flow-through assay devices)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal; self-calibrated flow-through assay devices)
IT Analytical apparatus
Calibration
Catalysts
Chemiluminescent substances
Color formers
Flow
Fluorescence immunoassay
Fluorescent substances
Immobilization, molecular or cellular
Immunoassay apparatus
Liposomes
Membranes, nonbiological
Microparticles
Phosphorescent substances
Radioactive substances
(self-calibrated flow-through assay devices)
IT C-reactive protein
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(self-calibrated flow-through assay devices)
IT 9003-01-4, Polyacrylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(activation and reaction with rhodamine derivative; self-calibrated flow-through assay devices)
IT 106-89-8D, Epichlorohydrin, reaction products with polyamines or polyamidoamines 9002-98-6D, Polyethylenimine, immobilized 9004-34-6D, Cellulose, cationic derivs. 25104-18-1D, Polylysine, immobilized 26062-79-3, Polydiallyldimethylammonium chloride 38000-06-5D, Polylysine, immobilized 709038-08-4, CelQuat 100H
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(capture reagent; self-calibrated flow-through assay devices)
IT 151-51-9, Carbodiimide
RL: RCT (Reactant); RACT (Reactant or reagent)
(in labeling monoclonal antibodies; self-calibrated flow-through assay devices)

IT 9003-01-4, Polyacrylic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(activation and reaction with rhodamine derivative; self-calibrated flow-through assay devices)
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



IT 9004-34-6D, Cellulose, cationic derivs.
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(capture reagent; self-calibrated flow-through assay devices)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 15 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:182798 HCAPLUS Full-text
DOCUMENT NUMBER: 140:236723
TITLE: Methods and compounds for controlling the morphology and shrinkage of silica derived from polyol-modified silanes for preparing biomolecule-compatible siliceous materials for chromatography supports, biosensors, etc.
INVENTOR(S): Zhang, Zheng; Brennan, John D.; Brook, Michael A.; Chen, Yang
PATENT ASSIGNEE(S): McMaster University, Can.
SOURCE: PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004018360	A1	20040304	WO 2003-CA1257	20030825

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2496736	A1	20040304	CA 2003-2496736	20030825
AU 2003258414	A1	20040311	AU 2003-258414	20030825
US 2004211730	A1	20041028	US 2003-647174	20030825
EP 1542926	A1	20050622	EP 2003-792064	20030825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005536625	T	20051202	JP 2005-501196	20030825
US 2004249082	A1	20041209	US 2004-814123	20040401
PRIORITY APPLN. INFO.:			US 2002-405308P	P 20020823
			US 2002-405309P	P 20020823
			US 2003-484298P	P 20030703
			WO 2003-CA1257	W 20030825

AB Siliceous materials are prepared by adding one or more additives, including water soluble polymers, and derivs. thereof, to sols containing tetraalkoxysilanes derived from polyols. The polymers facilitate phase separation of the growing silica gel matrix, leading to high surface area self-supporting silica gels with cure occurring at ambient temps. The materials also show a significant reduction in shrinkage properties.

IC ICM C01B033-16
ICS C07F007-04; A61K047-48; B01D015-08; G01N030-48

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 9

IT Polyoxyalkylenes, uses
RL: MOA (Modifier or additive use); USES (Uses)
(amino-terminated, as additive in siliceous material preparation; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Polyethers, uses
Polyoxyalkylenes, uses
Polyoxyalkylenes, uses
Polysaccharides, uses
RL: MOA (Modifier or additive use); USES (Uses)
(as additive in siliceous material preparation; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Immobilization, molecular or cellular
(enzyme; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Absorption spectroscopy
Affinity chromatographic stationary phases
Biosensors
Cations
Chromatographic stationary phases
Emission spectrometry
Fluorometry
Gelation
Human
IR spectroscopy
Immobilization, molecular or cellular
Luminescence spectroscopy
Reflection spectroscopy
Sonication
Spectroscopy
UV and visible spectroscopy
(methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible

siliceous materials for chromatog. supports, biosensors, etc.)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); DEV (Device component use); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)
(methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Immobilization, molecular or cellular
(protein; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Albumins, processes
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)
(serum, entrapped in gel; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Catalyst supports
Extraction columns
Preconcentration
(silica column for; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT Proteins
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process)
(silica matrix for storing; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT 50-69-1D, Ribose, silane derivs. 50-70-4D, Sorbitol, silane derivs. 50-99-7D, D-Glucose, silane derivs. 56-81-5D, Glycerol, silane derivs. 56-82-6D, Glyceraldehyde, compds., silane derivs. 57-48-7D, Fructose, silane derivs. 57-50-1D, Sucrose, silane derivs. 57-55-6D, Propylene glycol, silane derivs. 58-86-6D, Xylose, silane derivs. 59-23-4D, Galactose, silane derivs. 63-42-3D, Lactose, silane derivs. 65-42-9D, Lyxose, silane derivs. 69-79-4D, Maltose, silane derivs. 87-79-6D, L-Sorbose, silane derivs. 99-20-7D, Trehalose, silane derivs. 147-81-9D, Arabinose, silane derivs. 504-63-2D, Trimethylene glycol, silane derivs. 528-50-7D, Cellobiose, silane derivs. 1758-51-6D, Erythrose, silane derivs. 2152-76-3D, Idose, silane derivs. 3458-28-4D, Mannose, silane derivs. 5987-68-8D, Altrose, silane derivs. 6038-51-3D, Allose, silane derivs. 9000-69-5D, Pectin, silane derivs. 9002-89-5, Polyvinyl alcohol 9003-01-4, Poly(acrylic acid) 9003-05-8, Polyacrylamide 9003-47-8, Poly(vinylpyridine) 9004-54-0D, Dextran, silane derivs. 9005-82-7D, Amylose, silane derivs. 9046-10-0, Polypropylene glycol bis(2-aminopropyl ether) 19163-87-2D, Gulose, silane derivs. 25189-55-3, Poly(N-isopropylacrylamide) 25322-68-3, Polyethylene oxide 25322-68-3D, Polyethylene glycol, amino-terminated 25322-69-4, Polypropylene glycol 29884-64-8D, Threose, silane derivs. 30077-17-9D, Talose, silane derivs. 30551-89-4, Polyallylamine
RL: MOA (Modifier or additive use); USES (Uses)

(as additive in siliceous material preparation; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT 9004-54-0DP, Dextran, oxidation, reaction product with 3-(triethoxysilyl)-1-propanamine, uses 104275-58-3P 656798-40-2P 666829-33-0P
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(as additive in siliceous material preparation; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT 106-95-6, Allyl bromide, reactions 998-30-1, Triethoxysilane 1198-69-2, D-Gluconolactone 9004-54-0D, Dextran, lactone derivs. 42776-28-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

IT 9000-69-5D, Pectin, silane derivs. 9002-89-5, Polyvinyl alcohol 9003-01-4, Poly(acrylic acid) 9004-54-0D, Dextran, silane derivs. 9005-82-7D, Amylose, silane derivs. 9046-10-0, Polypropylene glycol bis(2-aminopropyl ether) 25322-68-3, Polyethylene oxide 25322-68-3D, Polyethylene glycol, amino-terminated 25322-69-4, Polypropylene glycol
RL: MOA (Modifier or additive use); USES (Uses)
(as additive in siliceous material preparation; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)

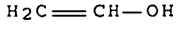
RN 9000-69-5 HCAPLUS
CN Pectin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

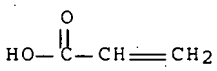
CRN 557-75-5
CMF C2 H4 O



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

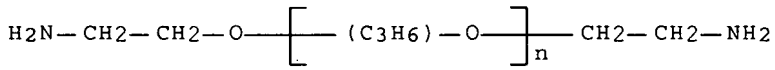
CRN 79-10-7
CMF C3 H4 O2



RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

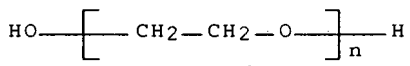
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-82-7 HCAPLUS
CN Amylose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9046-10-0 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)- (CA INDEX NAME)

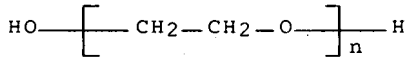


2 (D1—Me)

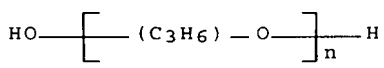
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



RN 25322-69-4 HCAPLUS
CN Poly[oxy(methyl-1,2-ethanediyl)], α-hydro-ω-hydroxy- (CA INDEX NAME)



IT 9004-54-0DP, Dextran, oxidation, reaction product with 3-(triethoxysilyl)-1-propanamine, uses
RL: MOA (Modifier or additive use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(as additive in siliceous material preparation; methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 9004-54-0D, Dextran, lactone derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(methods and compds. for controlling morphol. and shrinkage of silica derived from polyol-modified silanes for preparing biomol.-compatible siliceous materials for chromatog. supports, biosensors, etc.)
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 16 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:60030 HCAPLUS Full-text
DOCUMENT NUMBER: 140:124835
TITLE: Method, film, and kit for chemiluminescent detection
INVENTOR(S): Levison, Derek W. k.; Moller, Uwe; Levison, Stuart
PATENT ASSIGNEE(S): EMP Biotech GmbH, USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO.
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004014200	A1	20040122	US 2002-195978	20020716
US 6764819	B2	20040720		
WO 2004007745	A2	20040122	WO 2003-US21063	20030703
WO 2004007745	A3	20040311		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003247802	A1	20040202	AU 2003-247802	20030703
EP 1521843	A2	20050413	EP 2003-764352	20030703
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005074815	A1	20050407	US 2004-813284	20040330
US 6911305	B2	20050628		

PRIORITY APPLN. INFO.: US 2002-195978 A 20020716
WO 2003-US21063 W 20030703

AB The invention provides chemiluminescent assays that incorporate a film including at least one chemiluminescent precursor immobilized therewith which produces a triggerable chemiluminescent compound, the film being free of compds. which generate singlet oxygen and being adapted for use with a sensitizer-labeled agent or agent probative of the analyte. An activated N-hydroxysuccinimide ester of methylene blue sensitizer coupled to an oligonucleotide or an antibody was used in dot blot hybridization or immunoassay. A membrane containing hybridized target DNA was placed on a glass plate. Another membrane containing immobilized precursor chemiluminescent olefin was placed on top and covered with a sheet of black paper and another glass plate. The sandwich formation was exposed to red light for 15 min. to form a triggerable chemiluminescent precursor compound on the film. The membrane containing the triggerable chemiluminescent precursor compound was placed on top of a transparent plastic film covering a sheet of Hyperfilm ECL and NaOH was added to activate chemiluminescence. The Hyperfilm ECL was developed.

IC ICM C12M001-34
ICS C12Q001-08; C12M003-00; G03C005-04
INCL 435287200; 430396000
CC 9-5 (Biochemical Methods)
IT Catalysts
Electron donors
(as component on third film releasing activating substance; method, film, and kit for chemiluminescent detection)
IT Enzymes, analysis
RL: ARU (Analytical role, unclassified); CAT (Catalyst use); ANST (Analytical study); USES (Uses)
(as trigger for chemiluminescent compound; method, film, and kit for chemiluminescent detection)
IT Antibodies and Immunoglobulins
Antigens
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(conjugates, with methylene blue; method, film, and kit for chemiluminescent detection)
IT Antibodies and Immunoglobulins
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(monoclonal, conjugates, with methylene blue; method, film, and kit for chemiluminescent detection)
IT Immobilization, molecular or cellular
(of chemiluminescent precursor on film; method, film, and kit for chemiluminescent detection)
IT 9004-70-0, Nitrocellulose 24937-79-9, PVDF
RL: ARU (Analytical role, unclassified); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(antigen spotting on membrane of; method, film, and kit for chemiluminescent detection)
IT 9004-34-6D, Cellulose, compds.
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(films; method, film, and kit for chemiluminescent detection)
IT 9004-70-0, Nitrocellulose
RL: ARU (Analytical role, unclassified); TEM (Technical or engineered material use); ANST (Analytical study); USES (Uses)
(antigen spotting on membrane of; method, film, and kit for chemiluminescent detection)
RN 9004-70-0 HCAPLUS

CN Cellulose, nitrate (CA INDEX NAME)

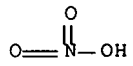
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7697-37-2
CMF H N O3



IT 9004-34-6D, Cellulose, compds.
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(films; method, film, and kit for chemiluminescent detection)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 17 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:971924 HCAPLUS Full-text
DOCUMENT NUMBER: 140:13698
TITLE: Delivery of substance to target sites using multilayer particles comprising charge switch materials
INVENTOR(S): Harper, Garry Robert; Cooper, Paula; Baker, Matthew John
PATENT ASSIGNEE(S): Dna Research Innovations Limited, UK
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101494	A1	20031211	WO 2003-GB2417	20030602

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2487304	A1	20031211	CA 2003-2487304	20030602
AU 2003232355	A1	20031219	AU 2003-232355	20030602
EP 1545626	A1	20050629	EP 2003-756071	20030602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006501156	T	20060112	JP 2004-508848	20030602
US 2006204584	A1	20060914	US 2004-516203	20041130
PRIORITY APPLN. INFO.:			GB 2002-12826 A	20020531
			WO 2003-GB2417 W	20030602

AB Materials and method are disclose for delivering a desired substance to a target site, using a layered carrier in which the carrier and the substance together form at least three layers which associate by ionic interaction at the first pH, where at least one layer comprises a charge switch material which comprises an ionizable group and which has a pos. charge at a first pH and a charge which is less pos., neutral or neg. at a second pH, at least one layer comprises a polyionic polymer which is neg. charged at the first pH and at least one layer comprises the desired substance. Preferred carriers are based on the charge switch material poly Bis-Tris and the polyionic polymer polyacrylic acid. The desired substance is selected from a nucleic acid, pharmaceutically active compound, protein, carbohydrate, growth factor, hormone, enzyme, vaccine, cell, cell component, virus, fertilizer, pesticide, insecticide, herbicide, fungicide, vitamin, feed supplement, imaging agent, dye, chelating agent, cosmetic, paint, detergent, lipid, food supplement and neutraceutical.

IC ICM A61K048-00
ICS A61K009-14

CC 3-1 (Biochemical Genetics)
Section cross-reference(s): 5, 9, 63

IT Drug delivery systems
(carriers; delivery of substance to target sites using multilayer particles comprising charge switch materials)

IT Albumins, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(delivery of; delivery of substance to target sites using multilayer particles comprising charge switch materials)

IT Cell
Chelating agents
Cosmetics
Detergents
Dietary supplements
Dyes
Fungicides
Herbicides
Imaging agents
Insecticides
Paints
Pesticides
Plasmid vectors
Vaccines
Virus
(delivery; delivery of substance to target sites using multilayer particles comprising charge switch materials)

IT Carbohydrates, biological studies
Enzymes, biological studies
Fertilizers
Growth factors, animal
Hormones, animal, biological studies
Lipids, biological studies
Nucleic acids

Proteins
Vitamins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(delivery; delivery of substance to target sites using multilayer particles comprising charge switch materials)

IT Immobilization, molecular or cellular
(of charge switch materials on particles; delivery of substance to target sites using multilayer particles comprising charge switch materials)

IT 9003-01-4, Polyacrylic acid 71550-12-4, Polyallylamine hydrochloride 630403-56-4
RL: AGR (Agricultural use); BUU (Biological use, unclassified); COS (Cosmetic use); FFD (Food or feed use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of substance to target sites using multilayer particles comprising charge switch materials)

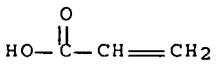
IT 58-08-2, Caffeine, biological studies 59-30-3, Folic acid, biological studies 69-53-4, Ampicillin 69-72-7, Salicylic acid, biological studies 123-03-5, Cetylpyridinium chloride 553-24-2, Neutral red 9004-10-8, Insulin, biological studies 9004-32-4, Carboxymethylcellulose 21293-29-8, Abscisic acid
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(delivery of; delivery of substance to target sites using multilayer particles comprising charge switch materials)

IT 9003-01-4, Polyacrylic acid
RL: AGR (Agricultural use); BUU (Biological use, unclassified); COS (Cosmetic use); FFD (Food or feed use); NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(delivery of substance to target sites using multilayer particles comprising charge switch materials)

RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



IT 9004-32-4, Carboxymethylcellulose
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(delivery of; delivery of substance to target sites using multilayer particles comprising charge switch materials)

RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (CA INDEX NAME)

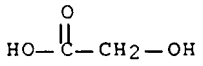
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 18 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:971917 HCAPLUS Full-text
DOCUMENT NUMBER: 140:19800
TITLE: Thermosensitive polymer carriers having a modifiable physical structure for biochemical analysis, diagnosis, and therapy
INVENTOR(S): Mueller-Schulte, Detlef P.
PATENT ASSIGNEE(S): Magnamedics GmbH, Germany
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003101486	A2	20031211	WO 2003-EP5614	20030528
WO 2003101486	A3	20041209		
W: AU, BR, BY, CA, CN, CO, ID, IL, IN, IS, JP, KR, MX, NO, NZ, PH, PL, RU, SG, TR, US, ZA				
RW: AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
DE 10224352	A1	20031211	DE 2002-10224352	20020601
AU 2003237709	A1	20031219	AU 2003-237709	20030528
EP 1509246	A2	20050302	EP 2003-735485	20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
US 2005175702	A1	20050811	US 2003-516629	20030528
CN 1658902	A	20050824	CN 2003-812675	20030528
JP 2005537342	T	20051208	JP 2004-508841	20030528
PRIORITY APPLN. INFO.:			DE 2002-10224352 A	20020601
			WO 2003-EP5614 W	20030528

AB The invention relates to thermosensitive polymers which contain magnetic and/or metallic colloids and the phys. structure of which can be modified by means of magnetic induction or by applying power, methods for the production thereof, and the use of such polymers for diagnostic and therapeutic purposes. Thus NMR contrast-enhancing agent for tumor diagnosis and therapy was prepared from N-isopropylacrylamide, acrylamide, N,N'-methylene bisacrylamide, aqueous magnetic iron colloid, anti-p53 antibodies, human serum albumin, inositol, gelatin, ammonium persulfate and TEMED. The reaction mixture was purified on a steel wool-filled column that was surrounded by a neodymium-boron-iron magnet.

IC ICM A61K041-00

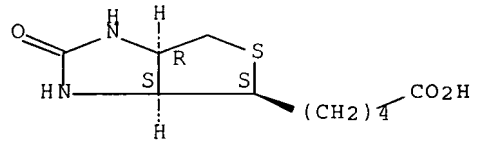
ICS A61K047-48
CC 63-5 (Pharmaceuticals)
IT Agglutinins and Lectins
Antibodies and Immunoglobulins
Glycoproteins
Oligosaccharides, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(affinity ligands; thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT Drug delivery systems
(delayed release; thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT Drug delivery systems
(targeted; thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT Antibiotics
Catalysts
Curie temperature (ferromagnetic)
Cytotoxic agents
Diabetes mellitus
Ferrimagnetic materials
Ferrofluids
Ferromagnetic materials
Human
Immunomodulators
Particle size
Shape memory effect
Surfactants
(thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT Albumins, biological studies
Antigens
Antisense nucleic acids
Cytokines
Gelatins, biological studies
Nucleic acids
Polyamides, biological studies
Polyesters, biological studies
Polyoxyalkylenes, biological studies
Polysaccharides, biological studies
Polysiloxanes, biological studies
Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT 58-85-5, Biotin 9013-20-1, Streptavidin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(affinity ligands; thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT 110-15-6D, Succinic acid, alkylsulfonic acid derivs.
9005-63-4, Polyoxyethylene sorbitan ester
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant; thermosensitive polymer carriers having a modifiable phys. structure for biochem. anal., diagnosis, and therapy)
IT 87-89-8, Inositol 7439-89-6, Iron, biological studies 7631-86-9, Silica, biological studies 9002-89-5, Polyvinylalcohol 9003-01-4, Polyacrylic acid 9003-53-6, Polystyrene 9004-10-8, Insulin, biological studies 9004-34-6, Cellulose, biological studies 9004-54-0, Dextran, biological studies 9004-61-9
, Hyaluronic acid 9005-25-8, Starch, biological studies

9005-32-7, Alginic acid 9005-64-5, Tween 20
9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4
, Chitosan 12052-28-7, Cobalt iron oxide, CoFe2O4 25068-14-8,
Polyacrolein 25087-26-7, Methacrylic acid homopolymer 25322-68-3
, Polyethylene glycol 26266-58-0, Span 85 26680-10-4, Polylactide
106392-12-5
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thermosensitive polymer carriers having a modifiable phys. structure
for biochem. anal., diagnosis, and therapy)

IT 58-85-5, Biotin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(affinity ligands; thermosensitive polymer carriers having a
modifiable phys. structure for biochem. anal., diagnosis, and therapy)

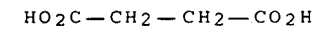
RN 58-85-5 HCAPLUS
CN 1H-Thieno[3,4-d]imidazole-4-pentanoic acid, hexahydro-2-oxo-,
(3aS,4S,6aR)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 110-15-6D, Succinic acid, alkylsulfonic acid derivs.
9005-63-4, Polyoxyethylene sorbitan ester
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(surfactant; thermosensitive polymer carriers having a
modifiable phys. structure for biochem. anal., diagnosis, and therapy)

RN 110-15-6 HCAPLUS
CN Butanedioic acid (CA INDEX NAME)



RN 9005-63-4 HCAPLUS
CN Sorbitan, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

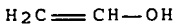
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9002-89-5, Polyvinylalcohol 9003-01-4, Polyacrylic acid
9004-34-6, Cellulose, biological studies 9004-54-0,
Dextran, biological studies 9004-61-9, Hyaluronic acid
9005-25-8, Starch, biological studies 9005-32-7, Alginic
acid 9005-64-5, Tween 20 9005-65-6, Tween 80
9012-36-6, Agarose 9012-76-4, Chitosan
25322-68-3, Polyethylene glycol 106392-12-5
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(thermosensitive polymer carriers having a modifiable phys. structure
for biochem. anal., diagnosis, and therapy)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

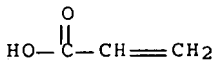
CRN 557-75-5
CMF C2 H4 O



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-64-5 HCAPLUS
CN Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

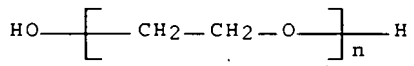
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-65-6 HCAPLUS
CN Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-36-6 HCAPLUS
CN Agarose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

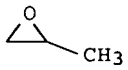
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



RN 106392-12-5 HCAPLUS
CN Oxirane, 2-methyl-, polymer with oxirane, block (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O



CM 2

CRN 75-21-8
CMF C2 H4 O

L38 ANSWER 19 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:570928 HCAPLUS Full-text
DOCUMENT NUMBER: 139:122717
TITLE: Hybrid immobilized catalytic system with controlled permeability
INVENTOR(S): Amiji, Mansoor M.; Taqieddin, Ehab S.
PATENT ASSIGNEE(S): Northeastern University, USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2003059848	A2	20030724	WO 2003-US738	20030110
WO 2003059848	A3	20031120		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003207508	A1	20030730	AU 2003-207508	20030110
US 2004266026	A1	20041230	US 2004-501130	20040712
PRIORITY APPLN. INFO.:			US 2002-347234P	P 20020110
			WO 2003-US738	W 20030110

AB An immobilized catalytic system comprising a carrier layer containing a catalytic entity and a permeable screening layer for providing controlled access between the immobilizing catalytic entity and the surrounding environment and methods of making such systems are disclosed. The carrier layer includes the catalytic entity mixed with a neutral or anionic carrier polymer, which may or may not be cross-linked with a crosslinking agent. The carrier layer includes a matrix of a permeable to mols. processed by, produced by or acted upon by the catalytic entity but is not permeable to the catalytic entity itself. Any counter ion to neutral or anionic carrier polymer cannot be the same as the cationic polymer of the screening layer, and any counter ion to the cationic polymer cannot be the same as the neutral or anionic carrier polymer.

IC ICM C07C

CC 63-5 (Pharmaceuticals)

IT Polysaccharides, biological studies
RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(acidic; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Phospholipids, biological studies
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(acidic; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Surfactants
(anionic; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Drug delivery systems
(carriers; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Metals, biological studies
RL: CAT (Catalyst use); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(catalytic systems; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Polyoxyalkylenes, biological studies
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(derivs.; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Animal tissue
Cell
Microorganism
Organelle
(encapsulation of; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Aptamers
Catalysts
Crosslinking agents
Immobilization, molecular or cellular
Molecular sieves
Molecular weight distribution
(hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Polymers, biological studies
Polyoxyalkylenes, biological studies
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Antibodies and Immunoglobulins
Enzymes, biological studies
Proteins
RNA
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT Carboxylic acids, biological studies
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(polycarboxylic; hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT 9002-89-5, Polyvinyl alcohol 9004-32-4, Carboxymethylcellulose 9005-49-6, Heparin, biological studies 9012-76-4, Chitosan 9042-14-2, Dextran sulfate 9086-85-5, Polyhydroxypropylmethacrylate 25087-26-7D, Polymethacrylic acid, derivs. 25322-68-3D, Polyethyleneglycol, derivs. 118037-03-9
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hybrid immobilized catalytic system with controlled permeability for therapeutic use)

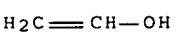
IT 7440-39-3D, Barium, salts 9004-34-6D, Cellulose, carboxyalkyl derivs. 9004-61-9D, Hyaluronic acid, salts 9005-32-7D, Alginic acid, salts
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hybrid immobilized catalytic system with controlled permeability for therapeutic use)

IT 9002-89-5, Polyvinyl alcohol 9004-32-4,
Carboxymethylcellulose 9005-49-6, Heparin, biological studies
9012-76-4, Chitosan 9042-14-2, Dextran sulfate
9086-85-5, Polyhydroxypropylmethacrylate 25087-26-7D,
Polymethacrylic acid, derivs. 25322-68-3D, Polyethyleneglycol,
derivs. 118037-03-9
RL: PEP (Physical, engineering or chemical process); POF (Polymer in
formulation); PYP (Physical process); TEM (Technical or engineered
material use); THU (Therapeutic use); BIOL (Biological study); PROC
(Process); USES (Uses)
(hybrid immobilized catalytic system with controlled permeability for
therapeutic use)

RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (CA INDEX NAME)

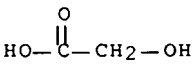
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9005-49-6 HCAPLUS
CN Heparin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9042-14-2 HCAPLUS
CN Dextran, hydrogen sulfate (CA INDEX NAME)

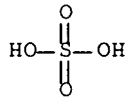
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



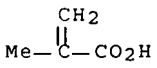
RN 9086-85-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, homopolymer (CA INDEX NAME)

CM 1

CRN 27813-02-1
CMF C7 H12 O3
CCI IDS

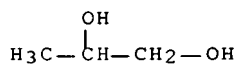
CM 2

CRN 79-41-4
CMF C4 H6 O2



CM 3

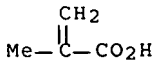
CRN 57-55-6
CMF C3 H8 O2



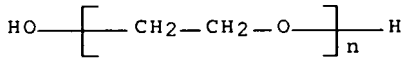
RN 25087-26-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, homopolymer (CA INDEX NAME)

CM 1

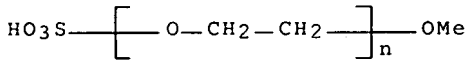
CRN 79-41-4
CMF C4 H6 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



RN 118037-03-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-sulfo-ω-methoxy- (CA INDEX NAME)



IT 9004-34-6D, Cellulose, carboxyalkyl derivs.
9004-61-9D, Hyaluronic acid, salts 9005-32-7D, Alginic acid, salts
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(hybrid immobilized catalytic system with controlled permeability for therapeutic use)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 20 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:511979 HCAPLUS Full-text
DOCUMENT NUMBER: 139:65709
TITLE: Polyelectrolytic internal calibration system of a flow-through assay

INVENTOR(S): Song, Xuedong; Wei, Ning; Sayre, Curt
PATENT ASSIGNEE(S): Kimberly-Clark Worldwide, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 35,014.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003124739	A1	20030703	US 2002-132421	20020425
US 2003119203	A1	20030626	US 2001-35014	20011224
WO 2003058246	A1	20030717	WO 2002-US37653	20021121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002357754	A1	20030724	AU 2002-357754	20021121
TW 587166	B	20040511	TW 2002-91136622	20021219
PRIORITY APPLN. INFO.:			US 2001-35014 A2	20011224
			US 2002-132421 A	20020425
			WO 2002-US37653 W	20021121

AB A flow-through assay for detecting the quantity of an analyte residing in a test sample is provided. The flow-through assay contains a porous membrane that is in fluid communication with probe conjugates that contain a specific binding member and a detectable probe. The porous membrane also defines a detection zone and a calibration zone. The calibration zone contains a polyelectrolyte substantially non-diffusively immobilized on the porous membrane. The polyelectrolyte is capable of generating a detectable calibration signal that can be readily compared (visually, quant., and the like) to a detection signal to determine the amount of analyte in the test sample.

IC ICM G01N033-558
INCL 436514000
CC 9-1 (Biochemical Methods)
IT Binders
Bond
Calibration
Catalysts
Chemiluminescent substances
Color formers
Colorimetry
Communication
Concentration (condition)
Configuration
Crosslinking
Diffusion
Flow
Fluids
Fluorescent substances
Functional groups
Immobilization, molecular or cellular

Isotope indicators
Liposomes
Polyelectrolytes
Samples
Sensors
Surface
(polyelectrolytic internal calibration system of a flow-through assay)
IT Antibodies and Immunoglobulins
Antigens
Haptens
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(polyelectrolytic internal calibration system of a flow-through assay)
IT 106-89-8, Epichlorohydrin, uses 6360-07-2, Acid Red 37 9002-98-6, Polyethylenimine 9004-34-6D, Cellulose, cationic derivs. 25104-18-1, Polylysine 25608-26-8 25988-97-0 26062-79-3, Polydiallyldimethyl ammonium chloride 26913-06-4, Polyethylenimine 38000-06-5, Polylysine 551935-79-6
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(polyelectrolytic internal calibration system of a flow-through assay)
IT 9004-34-6D, Cellulose, cationic derivs.
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(polyelectrolytic internal calibration system of a flow-through assay)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 21 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:511934 HCAPLUS Full-text
DOCUMENT NUMBER: 139:65764
TITLE: Use and evaluation of a [2+2] photocycloaddition in immobilization of oligonucleotides on a three-dimensional hydrogel matrix
INVENTOR(S): Elghanian, Robert; Brush, Charles K.; Xu, Yanzheng
PATENT ASSIGNEE(S): Amersham Biosciences AB, USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp., Cont.-in-part of U.S. Ser. No. 344,620.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003124525	A1	20030703	US 2001-928250	20010809
US 6664061	B2	20031216		
US 6372813	B1	20020416	US 1999-344620	19990625
US 2002146730	A1	20021010	US 2001-25185	20011219
US 6921638	B2	20050726		
US 2003096265	A1	20030522	US 2002-185279	20020628
WO 2003014392	A2	20030220	WO 2002-IB4038	20020809
WO 2003014392	A3	20031106		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2002341259 A1 20030224 AU 2002-341259 20020809

PRIORITY APPLN. INFO.: US 1999-344620 A2 19990625
US 2000-224070P P 20000809
US 2000-232305P P 20000912
US 2001-928250 A2 20010809
WO 2002-IB4038 W 20020809

AB The present invention provides solid supports (e.g., glass) and polymer hydrogels (particularly polymer hydrogel arrays present on a solid support) comprising one or more reactive sites for the attachment of biomols., as well as biomols. comprising one or more reactive sites for attachment to solid supports and polymer hydrogels. The invention further provides novel compns. and methods for the preparation of biomols., solid supports, and polymer hydrogels comprising reactive sites. The invention also provides for preparation of crosslinked solid supports, polymer hydrogels, and hydrogel arrays, wherein one or more biomols. is attached by means of the reactive sites in a photocycloaddn. reaction. Advantageously, according to the invention, crosslinking of the hydrogel and attachment of biomols. can be done in a single step. Genes having different expression levels were measured simultaneously using biotin-labeled cRNA generated from human placenta, brain, and heart mRNA. The microarray could detect gene expression at 3 copy per cell.

IC ICM C12Q001-68
ICS C12M001-34

INCL 435006000; 435287200

CC 9-16 (Biochemical Methods)
Section cross-reference(s): 3

IT Buffers
DNA microarray technology
Fluorometry
Human
Immobilization, molecular or cellular
Microarray technology
Nucleic acid amplification (method)
Nucleic acid hybridization
(expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)

IT DNA
Nucleic acids
RNA
RL: ANT (Analyte); ANST (Analytical study)
(expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)

IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)

IT DNA
Nucleic acids
RNA
mRNA
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(labeled; expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel

matrix)
IT mRNA
RL: ANT (Analyte); ARU (Analytical role, unclassified); ANST (Analytical study)
(of yeast or bacteria as standard; expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)
IT Crosslinking catalysts
(photosensitizers; expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)
IT 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-34-6D, Cellulose, activated
RL: TEM (Technical or engineered material use); USES (Uses)
(support; expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)
IT 9004-34-6D, Cellulose, activated
RL: TEM (Technical or engineered material use); USES (Uses)
(support; expression microarray assay using [2+2] photocycloaddn. in immobilization of oligonucleotides on three-dimensional hydrogel matrix)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 22 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:356687 HCAPLUS Full-text
DOCUMENT NUMBER: 138:364751
TITLE: In vitro metabolic engineering on a microscale microfluidics device using immobilized enzymes of a biosynthetic pathway
INVENTOR(S): Dordick, Jonathan S.; Srinivasan, Aravind; Kim, Jungbae; Sherman, David H.; Clark, Douglas S.
PATENT ASSIGNEE(S): Rensselaer Polytechnic Institute, USA; University of Minnesota; University of California at Berkeley
SOURCE: PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003038404	A2	20030508	WO 2002-US35281	20021101
WO 2003038404	A3	20031204		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002353997	A1	20030512	AU 2002-353997	20021101
US 2003162284	A1	20030828	US 2002-287442	20021101

US 2004062687	A1	20040401	US 2002-287440	20021101
US 2007059779	A1	20070315	US 2006-598306	20061113
PRIORITY APPLN. INFO.:			US 2001-336045P	P 20011101
			US 2002-287442	A3 20021101
			WO 2002-US35281	W 20021101

AB Disclosed herein is a microfluidics device that can be used to prepare natural products and their analogs. The device comprises the enzymes of a biosynthetic pathway immobilized thereon and a means for sequentially directing a starting material and each ensuing reaction product to the enzymes of the biosynthetic pathway in the order corresponding to the steps of the biosynthetic pathway. The device can thus be used to prepare the natural product using the natural starting material of the biosynthetic pathway or analogs of the natural product using an unnatural starting material. Alternatively, artificial pathways can be created by immobilizing an appropriate selection of enzymes on the device in an order whereby each subsequent enzyme can catalyze a reaction with the product of the prior enzyme. Novel chemical entities can be prepared from these artificial pathways. Exemplary enzymic polyphenol synthesis on a microfluidics chip and methymycin synthesis on microfluidics chip are described.

IC ICM G01N

CC 7-7 (Enzymes)
Section cross-reference(s): 9

IT Immobilization, molecular or cellular
(antibody; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT Immobilization, molecular or cellular
(enzyme; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT Collagens, uses
Polysaccharides, uses
Silicates, uses
RL: DEV (Device component use); USES (Uses)
(gel, immobilization support; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT Antibodies and Immunoglobulins
RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(immobilized, catalytic; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT Enzymes, preparation
Ribozymes
RL: CAT (Catalyst use); PNU (Preparation, unclassified); PREP (Preparation); USES (Uses)
(immobilized; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT Biosensors
Capillary tubes
Catalysts
Chromatographs
Immobilization, molecular or cellular
Lab-on-a-chip
Mass spectrometers
Metabolic pathways
Microarray technology
Microscopes
NMR spectrometers
Optical imaging devices
Radiation detectors
Spectrometers

Thermoregulators
(in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT 9000-07-1, Carrageenan 9000-30-0, Guar 9004-34-6, Cellulose, uses 9004-54-0, Dextran, uses 9004-61-9, Hyaluronic acid 9005-25-8, Starch, uses 9005-32-7, Alginic acid 9005-49-6, Heparin, uses 9005-80-5, Inulin
RL: DEV (Device component use); USES (Uses)
(gel; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT 50-99-7D, Glucose, reaction products with polyacrylate 57-48-7D, Fructose, alkyl derivs., reaction products with polyacrylate 57-48-7D, Fructose, reaction products with polyacrylate 57-50-1D, Sucrose, reaction products with polyacrylate 59-23-4D, Galactose, reaction products with polyacrylate 63-42-3D, Lactose, reaction products with polyacrylate 99-20-7D, Trehalose, reaction products with polyacrylate 3458-28-4D, Mannose, alkyl derivs., reaction products with polyacrylate 3458-28-4D, Mannose, reaction products with polyacrylate 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 9003-01-4D, Polyacrylic acid, reaction products with sugars 9003-05-8, Polyacrylamide 26571-64-2, Polyvinylene 57572-52-8, Polyvinyl silicate
RL: DEV (Device component use); USES (Uses)
(immobilization support; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

IT 9000-07-1, Carrageenan 9000-30-0, Guar 9004-34-6, Cellulose, uses 9004-54-0, Dextran, uses 9004-61-9, Hyaluronic acid 9005-25-8, Starch, uses 9005-32-7, Alginic acid 9005-49-6, Heparin, uses 9005-80-5, Inulin
RL: DEV (Device component use); USES (Uses)
(gel; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)

RN 9000-07-1 HCAPLUS
CN Carrageenan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9000-30-0 HCAPLUS
CN Guar gum (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

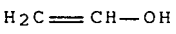
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-49-6 HCAPLUS
CN Heparin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-80-5 HCAPLUS
CN Inulin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid
9003-01-4D, Polyacrylic acid, reaction products with sugars
RL: DEV (Device component use); USES (Uses)
(immobilization support; in vitro metabolic engineering on microscale microfluidics device using immobilized enzymes of biosynthetic pathway)
RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

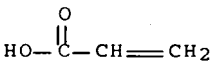
CRN 557-75-5
CMF C2 H4 O



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

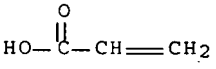
CRN 79-10-7
CMF C3 H4 O2



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



L38 ANSWER 23 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:238140 HCAPLUS Full-text
DOCUMENT NUMBER: 138:251134
TITLE: Method for the immobilization of proteins on nanoparticles and other carriers by using two binding sites
INVENTOR(S): Schiestel, Thomas; Tovar, Guenter; Brunner, Herwig
PATENT ASSIGNEE(S): Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany
SOURCE: Ger. Offen., 14 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10144251	A1	20030327	DE 2001-10144251	20010831
PRIORITY APPLN. INFO.:			DE 2001-10144251	20010831

AB The invention concerns the immobilization of proteins onto nanoparticles, membranes, gels, porous materials and other carriers by providing the carrier with two types of binding sites and using two binding sites of the proteins, including labels; one of the bonds formed for immobilization is a covalent bond the second bond is a non-covalent bond. The binding sites can be conjugated to the carriers or proteins directly, or the are conjugated via spacers. Carriers are inorg. compds., silicon, silica, alumina etc., or polymers. Proteins can carry labels for detection. The immobilized proteins are used for studying protein binding and inhibition of binding, e.g. for drug screening and tumor therapy.

IC ICM C07K017-00
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 1
IT Cytokines
RL: BSU (Biological study, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process)
(immobilized proteins; method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)
IT Drug screening
Fluorescent dyes
Functional groups
Gels
Immobilization, molecular or cellular
Membranes, nonbiological
Nanoparticles
Porous materials
Spin labels
(method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)
IT Proteins
RL: BSU (Biological study, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); BIOL (Biological study); PROC (Process)
(method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)
IT Drug delivery systems
(nanoparticles; method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)

IT 58-85-5, Biotin 1398-61-4, Chitin 1398-61-4D, Chitin, derivs. 9013-20-1, Streptavidin 157885-16-0, Neutravidin 439211-02-6, Streptactin
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)

IT 1306-06-5, Hydroxylapatite 1309-37-1, Ferric oxide, uses 1314-23-4, Zirconium oxide (ZrO2), uses 1314-61-0, Tantalum oxide (Ta2O5) 1344-28-1, Alumina, uses 7440-02-0D, Nickel, complex with NTA 7440-21-3, Silicon, uses 7631-86-9, Silica, uses 9003-01-4, Acrylic acid homopolymer 9003-07-0, Polypropylene 9003-53-6, Polystyrene 12060-18-3, Zirconium oxide (Zr2O3) 13463-67-7, Titanium oxide (TiO2), uses 20667-12-3, Silver oxide (Ag2O) 26100-51-6, Polylactic acid 26780-50-7, Lactide-glycolide copolymer 50926-11-9, Indiumtinoxide
RL: DEV (Device component use); USES (Uses)
(method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)

IT 1398-61-4, Chitin 1398-61-4D, Chitin, derivs.
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process)
(method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)

RN 1398-61-4 HCAPLUS
CN Chitin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 1398-61-4 HCAPLUS
CN Chitin (CA INDEX NAME)

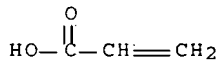
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9003-01-4, Acrylic acid homopolymer
RL: DEV (Device component use); USES (Uses)
(method for immobilization of proteins on nanoparticles and other carriers by using two binding sites)

RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 24 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:482991 HCAPLUS Full-text
DOCUMENT NUMBER: 137:52468
TITLE: Crosslinkable macromers for preparation of matrixes for implanted articles
INVENTOR(S): Chudzik, Stephen J.; Clapper, David L.

PATENT ASSIGNEE(S): Surmodics, Inc., USA
SOURCE: U.S., 14 pp., Cont.-in-part of U. S. 6,156,345.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6410044	B1	20020625	US 2000-571525	20000516
US 6007833	A	19991228	US 1998-121248	19980723
EP 1593377	A1	20051109	EP 2005-10611	19990311
R: DE, ES, FR, GB, IT, IE				
US 6156345	A	20001205	US 1999-469976	19991221
CA 2449964	A1	20021219	CA 2001-2449964	20010607
WO 2002100453	A1	20021219	WO 2001-US18345	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001275315	A1	20021223	AU 2001-275315	20010607
EP 1395301	A1	20040310	EP 2001-942016	20010607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2005508663	T	20050407	JP 2003-503270	20010607
AU 200238254	A	20020627	AU 2002-38254	20020508
AU 768179	B2	20031204		
US 2003031697	A1	20030213	US 2002-176203	20020620
US 6924370	B2	20050802		
MX 2003PA11263	A	20040226	MX 2003-PA11263	20031205
US 2005136091	A1	20050623	US 2004-990582	20041117
US 7094418	B2	20060822		
US 2006240072	A1	20061026	US 2006-475438	20060627

PRIORITY APPLN. INFO.:

US 1998-78607P	P	19980319
US 1998-121248	A3	19980723
US 1999-469976	A2	19991221
AU 1999-29035	A3	19990311
EP 1999-909954	A3	19990311
US 2000-571525	A1	20000516
WO 2001-US18345	W	20010607
US 2002-176203	A1	20020620
US 2004-990582	A2	20041117

AB A crosslinkable macromer system and related methods of preparing the system and using the system in the form of a crosslinked matrix between a tissue site and an implant article, such as a tissue implant or on the porous surface of a prosthetic device, is described. The macromer system includes two or more polymer-pendent polymerizable groups and one or more initiator groups (e.g., polymer-pendent initiator groups). The polymerizable groups and the initiator group(s), when polymer-pendent, can be pendent on the same or different polymeric backbones. The macromer system provides advantages over the use of polymerizable macromers and sep., low mol. weight initiators, including advantages with respect to such properties as nontoxicity, efficiency, and solubility A macromer system of the invention can be used as an interface between the tissue site and implant article in a manner sufficient to permit

tissue growth through the crosslinked matrix and between the tissue site and implant. In a preferred embodiment, polymers with pendent polymerizable groups, for use in the macromer system, are prepared by reacting a polysaccharide polymer with a reactive moiety in an organic, polar solvent, such as formamide. For example, a biodegradable tissue adhesive was prepared containing (i) 5% polymerizable hyaluronic acid, prepared by reaction of hyaluronic acid and glycidyl acrylate in dry formamide, and (ii) 2% photoderivatized polyacrylamide, prepared from acrylamide and N-(3-aminopropyl)methacrylamide (APMA). The maximum force generated by the adhesive prepared was 0.53 kg compared to 0.49 kg obtained for cyanoacrylate adhesive. Also, the photoderivatized polyacrylamide prepared was used in combination with polymerizable collagen (a reaction product of a mixture of type I and type III collagen with acryloyl chloride) for preparation of a scaffold containing bone morphogenetic protein (BMP-7). The exptl. disks of solidified collagen scaffold containing BMP-7 stimulated bone formation in a rat cranial onlay implant model.

IC ICM A61F002-06
ICS A61F002-28; A61F013-00; A61F047-30
INCL 424423000
CC 63-8 (Pharmaceuticals)
Section cross-reference(s): 35, 36
IT Animal tissue
Antibacterial agents
Antimicrobial agents
Bone formation
Crosslinking
Immobilization, molecular or cellular
Polymerization catalysts
Transplant and Transplantation
Wound healing promoters
(preparation of crosslinkable macromers and polymer matrixes for cell immobilization, tissue adherence and controlled drug delivery)
IT Albumins, biological studies
Collagens, biological studies
Elastins
Fibronectins
Gelatins, biological studies
Laminins
Polysaccharides, biological studies
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(preparation of crosslinkable macromers and polymer matrixes for cell immobilization, tissue adherence and controlled drug delivery)
IT Animal tissue
(soft, prostheses; preparation of crosslinkable macromers and polymer matrixes for cell immobilization, tissue adherence and controlled drug delivery)
IT Pentosans
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(sulfates; preparation of crosslinkable macromers and polymer matrixes for cell immobilization, tissue adherence and controlled drug delivery)
IT 9004-61-9DP, Hyaluronic acid, reaction products with glycidyl acrylate
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polymerizable; preparation of crosslinkable macromers and polymer matrixes for cell immobilization, tissue adherence and controlled drug delivery)
IT 9004-54-0, Dextran, biological studies 9004-61-9, Hyaluronic acid 9005-25-8, Starch, biological studies

9005-49-6, Heparin, biological studies 9007-28-7,
Chondroitin sulfate 9012-76-4, Chitosan 9042-14-2,
Dextran sulfate 9050-30-0, Heparan sulfate 9056-36-4, Keratan sulfate
24967-94-0, Dermatan sulfate
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT
(Reactant or reagent); USES (Uses)
(preparation of crosslinkable macromers and polymer matrixes for cell
immobilization, tissue adherence and controlled drug delivery)

IT 9004-61-9DP, Hyaluronic acid, reaction products with glycidyl
acrylate
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
study); PREP (Preparation); USES (Uses)
(polymerizable; preparation of crosslinkable macromers and polymer matrixes
for cell immobilization, tissue adherence and controlled drug delivery)

RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9004-54-0, Dextran, biological studies 9004-61-9,
Hyaluronic acid 9005-25-8, Starch, biological studies
9005-49-6, Heparin, biological studies 9007-28-7,
Chondroitin sulfate 9012-76-4, Chitosan 9042-14-2,
Dextran sulfate 24967-94-0, Dermatan sulfate
RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT
(Reactant or reagent); USES (Uses)
(preparation of crosslinkable macromers and polymer matrixes for cell
immobilization, tissue adherence and controlled drug delivery)

RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-49-6 HCAPLUS
CN Heparin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9007-28-7 HCAPLUS
CN Chondroitin, hydrogen sulfate (CA INDEX NAME)

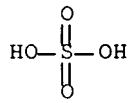
CM 1

CRN 9007-27-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9042-14-2 HCAPLUS
CN Dextran, hydrogen sulfate (CA INDEX NAME)

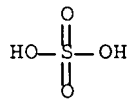
CM 1

CRN 9004-54-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



RN 24967-94-0 HCAPLUS
CN Dermatan, hydrogen sulfate (ester) (CA INDEX NAME)

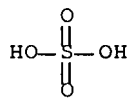
CM 1

CRN 75634-40-1
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7664-93-9
CMF H2 O4 S



REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 25 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:312155 HCAPLUS Full-text
DOCUMENT NUMBER: 136:291310
TITLE: Optical immobilizing method for piezoelectric sensing medium of enzyme and microbe
INVENTOR(S): Wei, Wanzhi
PATENT ASSIGNEE(S): Hunan Univ., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 5 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1317574	A	20011017	CN 2001-106837	20010115
CN 1131318	B	20031217		
PRIORITY APPLN. INFO.:			CN 2001-106837	20010115

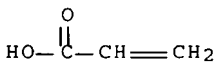
AB The method comprises preparing photocuring coating, coating on piezoelec. sensing quartz crystal with coating thickness of 0.1-1 mm, and photocuring under UV radiation at 350 nm for 10-30 s. The photocuring coating is composed of enzyme (such as amylase) or microbe, acrylic acid epoxy ester, polyacrylate, trihydroxymethylpropane triacrylate, 1,6-hexanediol diacrylate, photosensitive initiator (such as 1-hydroxyhexyl Ph ketone), organo-silicon adhesion promotor, inorg. salt hole-forming agent (such as NaOAc), and polyoxyethylene alkylphenyl ether stabilizing agent.

IC ICM C12Q001-00
ICS C09D133-06; C09D005-00; G01N027-26
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 7, 10
IT Polyoxyalkylenes, uses
RL: DEV (Device component use); USES (Uses)
(alkylphenyl ether; optical immobilizing method for piezoelec. sensing medium of enzyme and microbe)
IT Coating process
Composition
Crystals
Microorganism
Piezoelectric materials
Piezoelectric sensors
Stabilizing agents
Thickness
UV radiation
(optical immobilizing method for piezoelec. sensing medium of enzyme and microbe)
IT Enzymes, reactions
RL: ARG (Analytical reagent use); DEV (Device component use); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent); USES (Uses)
(optical immobilizing method for piezoelec. sensing medium of enzyme and microbe)
IT Immobilization, molecular or cellular
(optical; optical immobilizing method for piezoelec. sensing medium of

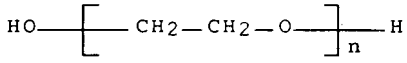
enzyme and microbe)
IT Polymerization catalysts
(photopolymn.; optical immobilizing method for piezoelec. sensing medium of enzyme and microbe)
IT 79-10-7D, Acrylic acid, epoxy ester 127-09-3, Sodium acetate 9003-01-4D, Polyacrylic acid, esters 13048-33-4, 1,6-Hexanediol diacrylate 14808-60-7, Quartz, uses 15625-89-5 25322-68-3D, alkylphenyl ether 100568-28-3, 1-Hydroxyhexyl phenyl ketone
RL: DEV (Device component use); USES (Uses)
(optical immobilizing method for piezoelec. sensing medium of enzyme and microbe)
IT 9003-01-4D, Polyacrylic acid, esters 25322-68-3D, alkylphenyl ether
RL: DEV (Device component use); USES (Uses)
(optical immobilizing method for piezoelec. sensing medium of enzyme and microbe)
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L38 ANSWER 26 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:798117 HCAPLUS Full-text
DOCUMENT NUMBER: 135:341126
TITLE: Apparatus and methods describing a two-chambered reaction vessel for ligand-affinity target identification using a combinatorial library
INVENTOR(S): Miller, Benjamin L.; Klekota, Bryan
PATENT ASSIGNEE(S): University of Rochester, USA
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2001080998 A1 20011101 WO 2001-US12857 20010420
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2002085955 A1 20020704 US 2001-838971 20010420
US 6599754 B2 20030729
EP 1311345 A1 20030521 EP 2001-928690 20010420
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
JP 2003534113 T 20031118 JP 2001-578085 20010420
PRIORITY APPLN. INFO.: US 2000-198953P P 20000421
WO 2001-US12857 W 20010420

AB The present invention relates to a method of identifying a ligand having affinity for a target mol. This method is carried out by providing a dual-chambered reaction vessel of the present invention, with the first chamber including an organic solvent and a plurality of reactants which form a combinatorial library of products, the second chamber including an aqueous solvent immiscible in the organic solvent and, optionally, a target mol., and the semipermeable membrane being permeable to one or more products of the combinatorial library of products; and then identifying any products present in the second chamber at higher concentration while the target mol. is present than without. Diagrams describing the apparatus are given.

IC ICM B01L003-00
CC 9-1 (Biochemical Methods)
Section cross-reference(s): 80
IT Analytical apparatus
Catalysts
Combinatorial library
Immobilization, biochemical
Mass spectrometry
Molecular recognition
Simulation and Modeling, physicochemical
(apparatus and methods describing a two-chambered reaction vessel for ligand-affinity target identification using a combinatorial library)
IT DNA
Proteins, general, analysis
RNA
RL: ANT (Analyte); ANST (Analytical study)
(apparatus and methods describing a two-chambered reaction vessel for ligand-affinity target identification using a combinatorial library)
IT 9002-88-4, Polyethylene 9004-34-6, Cellulose, uses
RL: DEV (Device component use); USES (Uses)
(apparatus and methods describing a two-chambered reaction vessel for ligand-affinity target identification using a combinatorial library)
IT 9004-34-6, Cellulose, uses
RL: DEV (Device component use); USES (Uses)
(apparatus and methods describing a two-chambered reaction vessel for ligand-affinity target identification using a combinatorial library)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 27 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:514783 HCAPLUS Full-text
DOCUMENT NUMBER: 135:89549
TITLE: Manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms
INVENTOR(S): Takadera, Takahide; Maki, Akira
PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001190274	A	20010717	JP 2000-2606	20000111
PRIORITY APPLN. INFO.:			JP 2000-2606	20000111

AB A method for synthesis of granular molding material for immobilization of enzymes or microorganisms is disclosed. The granules are manufactured by (1) gelling aqueous compns. containing (a) hydrophilic resins or amines having ≥2 ethylenically unsatd. bonds, (b) polymerization initiators, and (d) chitosan containing water-soluble polysaccharides by (1-1) dropping the compns. into basic aqueous media or (1-2) continuously pouring the compns. onto the media till the granules size grows sufficiently, followed by precipitating for gelation and (2) curing the resins by photopolymn. and/or thermal polymerization The granules, useful for bioreactors, fermentation, etc., show improved adhesion to microbial cells. Nitrogen containing alkyl meta acrylate, polymeric unsatd. amide, alkanolamine, or isocyanate containing ethylenically unsatd. monomer can be used as amine compound Photo polymerization initiators or redox type thermal polymerization initiators can be used. Use of polyethylene glycol, isophorone diisocyanate, 2-hydroxyethyl methacrylate, chitosan acidic solution, and benzoin Bu ether is described. Use of 2-hydroxyethyl acrylate, hydroquinone, N,N-dimethylaminoethyl acrylate, peroxo disulfate ammonium, sodium hydrogen sulfite, as alternative, is also described.

IC ICM C12N011-08
ICS C08F002-00; C08F290-00; C08F299-00; C12M001-40
CC 9-16 (Biochemical Methods)
IT Organelle
(granule; manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)
IT Gelation
Immobilization, biochemical
Microorganism
Polymerization
(manufacture of granules containing hydrophilic resins and polysaccharides for
immobilization of enzymes or microorganisms)
IT Enzymes, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); BIOL (Biological study); PROC (Process)
(manufacture of granules containing hydrophilic resins and polysaccharides for
immobilization of enzymes or microorganisms)
IT Amines, biological studies
Polyoxyalkylenes, biological studies

RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

IT Polymerization
Polymerization catalysts
(photopolymn.; manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

IT Polymerization catalysts
(redox; manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

IT 9012-76-4, Chitosan
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(containing water-soluble polysaccharides; manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

IT 123-31-9, Hydroquinone, biological studies 818-61-1, 2-Hydroxyethyl acrylate 868-77-9, 2-Hydroxyethyl methacrylate 2439-35-2 4098-71-9, Isophorone diisocyanate 7631-90-5, Sodium hydrogen sulfite 7727-54-0, Ammonium peroxydisulfate 22499-11-2, Benzoin butyl ether 25322-68-3, Polyethylene glycol
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

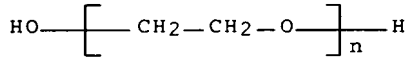
IT 9012-76-4, Chitosan
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(containing water-soluble polysaccharides; manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 25322-68-3, Polyethylene glycol
RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
(manufacture of granules containing hydrophilic resins and polysaccharides for immobilization of enzymes or microorganisms)

RN 25322-68-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



L38 ANSWER 28 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:31675 HCAPLUS Full-text
DOCUMENT NUMBER: 134:83111

TITLE: Methods and compositions for assaying analytes
INVENTOR(S): Yuan, Chong-Sheng
PATENT ASSIGNEE(S): General Atomics, USA
SOURCE: PCT Int. Appl., 187 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001002600	A2	20010111	WO 2000-US18057	20000630
WO 2001002600	A3	20020110		
WO 2001002600	A9	20020725		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6376210	B1	20020423	US 1999-347878	19990706
CA 2377665	A1	20010111	CA 2000-2377665	20000630
GB 2368641	A	20020508	GB 2002-425	20000630
GB 2368641	B	20041006		

PRIORITY APPLN. INFO.:

US 1999-347878	A	19990706
US 1999-457205	A	19991206
WO 2000-US18057	W	20000630

AB Compns. and methods for assaying analytes, preferably, small mol. analytes are provided. Assay methods employ, in place of antibodies or mols. that bind to target analytes or substrates, modified enzymes, called substrate trapping enzymes. These modified enzymes retain binding affinity or have enhanced binding affinity for a target substrate or analyte, but have attenuated catalytic activity with respect to that substrate or analyte. The modified enzymes are provided. In particular, mutant S-adenosylhomocysteine (SAH) hydrolases, substantially retaining binding affinity or having enhanced binding affinity for homocysteine or S-adenosylhomocysteine but having attenuated catalytic activity, are provided. Conjugates of the modified enzymes and a facilitating agent, such as agents that aid in purification or linkage to a solid support are also provided.

IC ICM C12Q001-00
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 7
IT Enzymes, analysis
RL: ANT (Analyte); ANST (Analytical study)
(Bile acid-binding; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Bile salts-binding; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Cholesterol-binding; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(DNA-binding; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Ethanol binding; methods and compns. for assaying analytes)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(Fluorescent; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Folate-binding; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Glucose-binding; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Homocysteine-binding; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(IgG-binding; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(Polysaccharide binding; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(RNA-binding; methods and compns. for assaying analytes)
IT Enzymes, uses
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(Uric acid-binding; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(contractile; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(defense; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(lipid-binding; methods and compns. for assaying analytes)
IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(metal-binding; methods and compns. for assaying analytes)
IT Affinity
Amniotic fluid
Animal cell
Animal tissue
Anions
Artery
Blood analysis
Body fluid
Catalysts
Cell
Cerebrospinal fluid
Composition
Conjugation (molecular association)
Connective tissue
DNA repair
Disease, animal
Drugs
Epithelium
Epitopes
Escherichia coli
Feces
Fluorescent substances
Fungi
Genetic markers

Hydrolysis
Immobilization, biochemical
Infection
Insect (Insecta)
Ions
Lactobacillus casei
Liver
Lymph node
Michaelis constant
Molecules
Mucus
Muscle
Mutation
Neoplasm
Nerve
Organ, animal
Oxidation
Pancreas
Plant cell
Plasmids
Protein sequences
Purification
Recombination, genetic
Saliva
Semen
Sputum
Sulfhydryl group
Tear (ocular fluid)
Test kits
Therapy
Thermoanaerobacterium thermosulfurigenes
Transcription, genetic
Urine analysis
Yeast
(methods and compns. for assaying analytes)

IT Amino acids, analysis
Bile acids
Bile salts
Cardiolipins
Cerebrosides
Fusion proteins (chimeric proteins)
Gangliosides
Glycerides, analysis
Glycerophospholipids
Hexoses
Inorganic compounds
Lipids, analysis
Monosaccharides
Nucleic acids
Nucleosides, analysis
Nucleotides, analysis
Oligonucleotides
Oligosaccharides, analysis
Organic compounds, analysis
Pentoses
Peptides, analysis
Phosphatidylcholines, analysis
Phosphatidylethanolamines, analysis
Phosphatidylinositols
Phosphatidylserines

Polysaccharides, analysis
Sphingolipids
Sphingomyelins
Sterols
Transport proteins
Vitamins
Waxes
RL: ANT (Analyte); ANST (Analytical study)
(methods and compns. for assaying analytes)

IT Enzymes, uses
RL: ARG (Analytical reagent use); CAT (Catalyst use); ANST (Analytical study); USES (Uses)
(methods and compns. for assaying analytes)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(motile; methods and compns. for assaying analytes)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(nutrient; methods and compns. for assaying analytes)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(regulatory; methods and compns. for assaying analytes)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(storage; methods and compns. for assaying analytes)

IT Proteins, specific or class
RL: ANT (Analyte); ANST (Analytical study)
(structural; methods and compns. for assaying analytes)

IT 50-69-1, Ribose 50-81-7, Ascorbic acid, analysis 50-89-5, Thymidine, analysis 50-99-7, Glucose, analysis 52-90-4, Cysteine, analysis 53-57-6, Nadph 53-84-9, Nad+ 54-47-7, Pyridoxal 5'-phosphate 56-40-6, Glycine, analysis 56-41-7, Alanine, analysis 56-45-1, Serine, analysis 56-65-5, Atp, analysis 56-82-6, Glyceraldehyde 56-84-8, Aspartic acid, analysis 56-85-9, Glutamine, analysis 56-86-0, Glutamic acid, analysis 56-87-1, Lysine, analysis 57-10-3, Palmitic acid, analysis 57-11-4, Octadecanoic acid, analysis 57-48-7, Fructose, analysis 57-88-5, Cholesterol, analysis 58-61-7, Adenosine, analysis 58-64-0, Adp, analysis 58-68-4, Nadh 58-85-5, Biotin 58-86-6, Xylose, analysis 58-96-8, Uridine 58-97-9, Ump, analysis 58-98-0, Udp, analysis 59-23-4, Galactose, analysis 59-30-3, analysis 59-43-8, Thiamine, analysis 59-67-6, Nicotinic acid, analysis 60-18-4, Tyrosine, analysis 61-19-8, Amp, analysis 61-90-5, Leucine, analysis 63-37-6, Cmp 63-38-7, Cdp 63-39-8, Utp 63-68-3, Methionine, analysis 63-91-2, Phenylalanine, analysis 64-17-5, Ethanol, analysis 65-23-6, Pyridoxin 65-42-9, Lyxose 65-46-3, Cytidine 65-47-4, Ctp 68-19-9, Vitamin b12 69-93-2, Uric acid, analysis 70-47-3, Asparagine, analysis 71-00-1, Histidine, analysis 72-18-4, Valine, analysis 72-19-5, Threonine, analysis 73-22-3, Tryptophan, analysis 73-32-5, Isoleucine, analysis 74-79-3, Arginine, analysis 79-83-4, Pantothenic acid 83-48-7, Stigmasterol 83-88-5, Riboflavin, analysis 85-32-5, Gmp 86-01-1, Gtp 107-43-7, Betaine 118-00-3, Guanosine, analysis 122-32-7, Triolein 134-35-0 143-07-7, Lauric acid, analysis 146-91-8, Gdp 147-81-9, Arabinose 147-85-3, Proline, analysis 365-07-1, Dtmp 365-08-2, Dttp 453-17-8, Triose 491-97-4, Dtdp 506-30-9, Arachidic acid 544-63-8, Myristic acid, analysis 555-43-1, Tristearin 555-44-2, Tripalmitin 557-59-5, Lignoceric acid 653-63-4, Damp 800-73-7, Dcdp 902-04-5, Dgmp 964-26-1, Dump 979-92-0, S-Adenosylhomocysteine 1032-65-1, Dcmp 1406-16-2, Vitamin d 1406-18-4, Vitamin e 1758-51-6, Erythrose 1927-31-7, Datp 2056-98-6, Dctp 2152-76-3, Idose 2564-35-4, Dgtp 2793-06-8, Dadp 3019-74-7,

Sedoheptulose 3432-99-3 3458-28-4, Mannose 3493-09-2, Dgdp 4033-27-6 5556-48-9, Ribulose 5987-68-8, Altrose 6027-13-0, Homocysteine 6038-51-3, Allose 7439-89-6, Iron, analysis 7439-95-4, Magnesium, analysis 7439-96-5, Manganese, analysis 7439-98-7, Molybdenum, analysis 7440-02-0, Nickel, analysis 7440-09-7, Potassium, analysis 7440-21-3, Silicon, analysis 7440-23-5, Sodium, analysis 7440-31-5, Tin, analysis 7440-38-2, Arsenic, analysis 7440-42-8, Boron, analysis 7440-47-3, Chromium, analysis 7440-48-4, Cobalt, analysis 7440-50-8, Copper, analysis 7440-62-2, Vanadium, analysis 7440-66-6, Zinc, analysis 7440-70-2, Calcium, analysis 7553-56-2, Iodine, analysis 7732-18-5, Water, analysis 7782-41-4, Fluorine, analysis 7782-44-7, Oxygen, analysis 7782-50-5, Chlorine, analysis 9004-34-6, Cellulose, analysis 9004-61-9, Hyaluronic acid 9005-25-8, Starch, analysis 9005-79-2, Glycogen, analysis 11103-57-4, Vitamin a 12001-79-5, Vitamin k 12672-30-9, Arsenic ion, analysis 15158-11-9, analysis 16887-00-6, Chloride, analysis 16984-48-8, Fluoride, analysis 19163-87-2, Gulose 29884-64-8, Threose 30077-17-9, Talose 42616-25-1, Methioninase
RL: ANT (Analyte); ANST (Analytical study)
(methods and compns. for assaying analytes)

IT 9004-34-6, Cellulose, analysis 9004-61-9, Hyaluronic acid 9005-25-8, Starch, analysis 9005-79-2, Glycogen, analysis
RL: ANT (Analyte); ANST (Analytical study)
(methods and compns. for assaying analytes)

RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-61-9 HCAPLUS
CN Hyaluronic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-79-2 HCAPLUS
CN Glycogen (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 29 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:688353 HCAPLUS Full-text
DOCUMENT NUMBER: 133:263222
TITLE: Surfactant-coated lipase complex immobilized on insoluble matrix and its uses for transesterification of oils and fats in hydrophobic organic media
INVENTOR(S): Basheer, Sobhi
PATENT ASSIGNEE(S): Enzymotec Ltd., Israel
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000056869	A2	20000928	WO 2000-IL166	20000316

WO 2000056869 A3 20010208
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2368179	A1	20000928	CA 2000-2368179	20000316
EP 1163329	A2	20011219	EP 2000-911221	20000316
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002539782	T	20021126	JP 2000-606728	20000316
NZ 514271	A	20030829	NZ 2000-514271	20000316
AU 773466	B2	20040527	AU 2000-33206	20000316
PRIORITY APPLN. INFO.:			IL 1999-129086	A 19990322
			AU 1998-87608	A3 19980728
			WO 2000-IL166	W 20000316

AB A lipase preparation comprising an insol. matrix and a surfactant-coated lipase complex immobilized onto said insol. matrix is disclosed. Method of preparation and the use of the immobilized lipase as a biocatalyst for catalyzing, for example, inter- and/or trans-esterification of oils and fats in hydrophobic organic media are disclosed. The novel procedures include two steps. In the first step, the enzyme is activated by being coated with a surfactant. In the second step, the enzyme is immobilized on the matrix of choice. The steps can be executed in any order.

IC ICM C12N011-08
ICS C12N011-14; C12N009-20; C12P007-64

CC 7-7 (Enzymes)
Section cross-reference(s): 17, 45, 63

IT Immobilization, biochemical
(enzyme; surfactant-coated lipase complex immobilized on insol. matrix and its uses for transesterification of oils and fats in hydrophobic organic media)

IT Enzymes, biological studies
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); PNU (Preparation, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(immobilized; surfactant-coated lipase complex immobilized on insol. matrix and its uses for transesterification of oils and fats in hydrophobic organic media)

IT Alcoholysis catalysts
Aspergillus niger
Buffers
Burkholderia
Candida antarctica
Candida cylindracea
Coating process
Cocoa butter substitutes
Dehydration
Drying
Esterification catalysts
Freeze drying
Granular materials
Humicola
Ion exchangers
Microorganism

Mucor javanicus
Pancreas
Pseudomonas
Pseudomonas fluorescens
Rhizomucor miehei
Rhizopus
Rhizopus japonicus
Rhizopus javanicus
Rhizopus oryzae
Sonication
Surfactants
Transesterification catalysts
(surfactant-coated lipase complex immobilized on insol. matrix and its uses for transesterification of oils and fats in hydrophobic organic media)

IT 471-34-1, Calcium carbonate, uses 637-12-7, Aluminum stearate 1344-28-1, Alumina, uses 7778-18-9, Calcium sulfate 9004-34-6D, Cellulose, ethylsulfoxy derivs., uses 9079-25-8, Amberlite 37199-22-7, Dowex 101239-42-3, Eupergit
RL: NUU (Other use, unclassified); USES (Uses)
(surfactant-coated lipase complex immobilized on insol. matrix and its uses for transesterification of oils and fats in hydrophobic organic media)

IT 9004-34-6D, Cellulose, ethylsulfoxy derivs., uses
RL: NUU (Other use, unclassified); USES (Uses)
(surfactant-coated lipase complex immobilized on insol. matrix and its uses for transesterification of oils and fats in hydrophobic organic media)

RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 30 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2000:401883 HCAPLUS Full-text
DOCUMENT NUMBER: 133:34392
TITLE: Method for the immobilization of oligonucleotides
INVENTOR(S): Adams, Christopher P.; Kittle, Joseph D.
PATENT ASSIGNEE(S): Mosaic Technologies, Inc., USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000034343	A1	20000615	WO 1999-US28666	19991203
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2353596	A1	20000615	CA 1999-2353596	19991203
EP 1155056	A1	20011121	EP 1999-960649	19991203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO

AU 2004212553	A1	20041014	AU 2004-212553	20040916
US 2005153926	A1	20050714	US 2005-54650	20050209
PRIORITY APPLN. INFO.:			US 1998-110891P	P 19981204
			AU 2000-17504	A3 19991203
			WO 1999-US28666	W 19991203
			US 2001-857378	B3 20011115

AB Novel compns. are provided for introducing into a cell a nucleic acid mol. capable of modulating the genotype and phenotype. The gene can be introduced into a mammalian host by way of an expression vector either as naked DNA or conjugated to carriers, particularly cationic carriers. The conjugation is accomplished by means of an ethylene-containing moiety tethered to the nucleic acid mol. The techniques and compns. find use in the palliation or treatment of any of a variety of genetic-based disorders.

IC ICM C08F018-14
ICS C08F118-14; C08F218-14; C08J003-28; C08J005-00

CC 63-3 (Pharmaceuticals)
Section cross-reference(s): 3

IT Drug delivery systems
(inhalants; oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)

IT Enzymes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(oligonucleotides immobilization on polymer carrier by change in pH, enzymic action, reduction, oxidation, light and heat)

IT Disulfide group
Encapsulation
Eukaryote (Eukaryotae)
Gene therapy
Immobilization, biochemical
(oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)

IT DNA
Nucleic acids
Oligonucleotides
RNA
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)

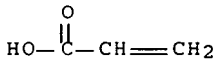
IT Drug delivery systems
(oral; oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)

IT Drug delivery systems
(particles; oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)

IT Drug delivery systems
(transdermal; oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)

IT 79-06-1D, Acrylamide, derivs., esters 79-10-7D, Acrylic acid, C1-6 alkyl esters, polymers 9002-89-5, Poly(vinyl alcohol) 9003-01-4, Polyacrylic acid 9003-05-8, Polyacrylamide 9011-14-7, Poly(methyl methacrylate) 9056-77-3, Poly(ethylene glycol)methacrylate 25067-30-5, Polyethylcyanoacrylate 25249-16-5 28474-30-8, Poly(glyceryl methacrylate) 30398-79-9, Poly(triethylene glycol monomethacrylate)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligonucleotides immobilization on polymer carrier for

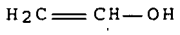
treatment of genetic-based disorders)
IT 79-10-7D, Acrylic acid, C1-6 alkyl esters, polymers
9002-89-5, Poly(vinyl alcohol) 9003-01-4, Polyacrylic acid
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oligonucleotides immobilization on polymer carrier for treatment of genetic-based disorders)
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (CA INDEX NAME)



RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

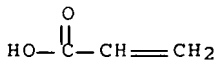
CRN 557-75-5
CMF C2 H4 O



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 31 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:613765 HCAPLUS Full-text
DOCUMENT NUMBER: 131:233584
TITLE: Production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly
INVENTOR(S): Donath, Edwin; Sukhorukov, Gleb B.; Lerche, Karl-Heinz; Voigt, Andreas; Baeumler, Hans; Caruso, Frank; Moehwald, Helmuth
PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der Wissenschaften e.V., Germany

SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9947252	A2	19990923	WO 1999-EP1855	19990319
WO 9947252	A3	20000113		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19812083	A1	19990930	DE 1998-19812083	19980319
EP 972563	A1	20000119	EP 1998-113181	19980715
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
DE 19907552	A1	20000831	DE 1999-19907552	19990222
EP 1064087	A2	20010103	EP 1999-911804	19990319
EP 1064087	B1	20060125		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE				
JP 2002506719	T	20020305	JP 2000-536480	19990319
DE 29924358	U1	20030206	DE 1999-29924358	19990319
AT 316420	T	20060215	AT 1999-911804	19990319
EP 1647270	A2	20060419	EP 2005-27658	19990319
EP 1647270	A3	20060920		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE				
EP 1647326	A2	20060419	EP 2005-27659	19990319
EP 1647326	A3	20060920		
R: AT, BE, CH, DE, DK, FR, GB, IT, LI, NL, SE				
US 2003219384	A1	20031127	US 2003-376386	20030227
US 7101575	B2	20060905		
US 2006275373	A1	20061207	US 2006-502180	20060810
US 2006275374	A1	20061207	US 2006-502181	20060810
US 2006275375	A1	20061207	US 2006-502182	20060810

PRIORITY APPLN. INFO.:

DE 1998-19812083	A	19980319
EP 1998-113181	A	19980715
DE 1999-19907552	A	19990222
EP 1999-911804	A	19990319
WO 1999-EP1855	W	19990319
US 2000-646742	B2	20001106
US 2003-376386	A1	20030227

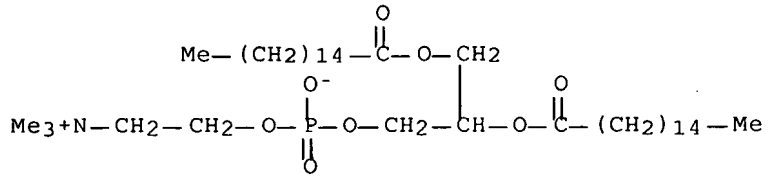
AB Nano- and microcapsules coated with a polyelectrolyte shell and a diameter ≤10 μm are prepared by coating template particles with a polyelectrolyte, or with alternating layers of cationic and anionic polyelectrolytes. The template particles (cores) may then be removed, e.g. by dissoln., and the porous polyelectrolyte shells may be loaded with active agents. The porosity of the polyelectrolyte coating can be altered by use of branched polyelectrolytes or swellable copolymers or be addnl. coating with polar lipids. Alternatively, active agents may be immobilized on the template particles prior to coating with polyelectrolytes. The capsules are highly stable and relatively monodisperse, and can be dried, frozen, or freeze-dried. Thus, monodisperse melamine-formaldehyde template particles ≤15 μ in diameter were prepared by polycondensation of a precondensate such as tetramethylolmelamine; the process was interrupted, e.g. by cooling or alkalization, before crosslinking was complete. The particles were coated by adsorption of Na polystyrenesulfonate from solution in 0.5M NaCl, washed with deionized water by centrifugation, coated with poly(allylamine.HCl), and washed; these steps were alternately

repeated 5 times. The cores were dissolved by acidification with HCl to pH <1.6, leaving porous shells which were collected by centrifugation. The shells were porous to mols. ≤10 nm in size.

IC ICM B01J013-00
CC 63-6 (Pharmaceuticals)
IT Erythrocyte
(coating of, with polyelectrolytes in microcapsule preparation; production of
nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT Surfactants
(microcapsule shells containing; production of nanocapsules and microcapsules
by layer-wise polyelectrolyte self-assembly)
IT Catalysts
Crystals
Dyes
Flavoring materials
Fluorescent dyes
Gases
Indicators
Liquids
Nanoparticles
Pesticides
(microcapsules containing; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT Enzymes, biological studies
Polymers, biological studies
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microcapsules containing; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT Immobilization, biochemical
(of active agent on microcapsule core; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT 1317-61-9, Iron oxide (Fe3O4), biological studies 2644-64-6 9012-76-4, Chitosan 19698-29-4, Dipalmitoylphosphatidic acid 37293-26-8, Chitosan sulfate
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in microcapsule shells; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT 67-56-1, Methanol, uses 81-88-9, Rhodamine B 111-27-3, 1-Hexanol, uses 111-65-9, Octane, uses 111-87-5, 1-Octanol, uses 124-18-5, Decane 3301-79-9 9003-01-4, Poly(acrylic acid)
RL: NUU (Other use, unclassified); USES (Uses)
(microcapsules containing; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microfilters, in preparation of polyelectrolyte-coated microparticles; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
IT 2644-64-6 9012-76-4, Chitosan 19698-29-4, Dipalmitoylphosphatidic acid
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(in microcapsule shells; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)

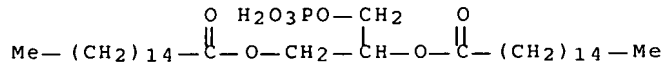
RN 2644-64-6 HCAPLUS
CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide (CA INDEX NAME)



RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

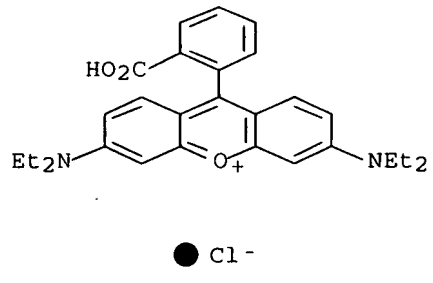
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 19698-29-4 HCAPLUS
CN Hexadecanoic acid, 1-[(phosphonooxy)methyl]-1,2-ethanediyl ester (CA INDEX NAME)

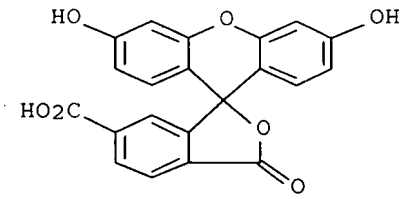


IT 81-88-9, Rhodamine B 3301-79-9 9003-01-4, Poly(acrylic acid)
RL: NUU (Other use, unclassified); USES (Uses)
(microcapsules containing; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)

RN 81-88-9 HCAPLUS
CN Xanthylium, 9-(2-carboxyphenyl)-3,6-bis(diethylamino)-, chloride (1:1) (CA INDEX NAME)



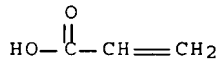
RN 3301-79-9 HCAPLUS
CN Spiro[isobenzofuran-1(3H),9'-[9H]xanthene]-6-carboxylic acid, 3',6'-dihydroxy-3-oxo- (CA INDEX NAME)



RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



IT 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate
RL: NUU (Other use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(microfilters, in preparation of polyelectrolyte-coated microparticles; production of nanocapsules and microcapsules by layer-wise polyelectrolyte self-assembly)
RN 9004-35-7 HCAPLUS
CN Cellulose, acetate (CA INDEX NAME)

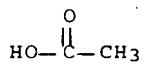
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 64-19-7
CMF C2 H4 O2



RN 9004-70-0 HCAPLUS
CN Cellulose, nitrate (CA INDEX NAME)

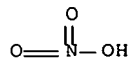
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 7697-37-2
CMF H N O3



L38 ANSWER 32 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:468444 HCAPLUS Full-text
DOCUMENT NUMBER: 131:92560
TITLE: Attachment of biomolecules to surfaces of medical devices for improvement of biocompatibility
INVENTOR(S): Keogh, James R.
PATENT ASSIGNEE(S): Medtronic, Inc., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 7
PATENT INFORMATION:

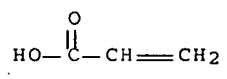
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9933499	A2	19990708	WO 1998-US27825	19981230
WO 9933499	A3	19990910		
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5945319	A	19990831	US 1997-1994	19971231
PRIORITY APPLN. INFO.:			US 1997-1994 A	19971231
			US 1996-635187 A2	19960425

AB A method of forming a coating on a surface of a medical device for improvement of biocompatibility is described. The method comprises steps of: oxidizing a biomol. (a protein or peptide) containing 2-aminoalc. moiety with a periodate to form an aldehyde-functional material, combining the aldehyde-functional material with a biomaterial surface containing a primary amine moiety to immobilize the biomol. on the substrate surface through an imine moiety, and reacting the imine moiety with a reducing agent to form an immobilized biomol. on the biomaterial surface through a sec. amine linkage. Another method of the present invention may be employed to crosslink biomols. immobilized on medical device surfaces. Addnl., one method of the present invention may be employed to crosslink biomols., thereby forming a crosslinked biomaterial or a crosslinked medical device coating. E.g., type IV collagen was oxidized with NaIO4 and the oxidized collagen was then allowed to form crosslinks, thereby bonding the mols. together through imine moieties formed from an aldehyde moiety of one collagen mol. reacting with an amine moiety of a neighboring

collagen mol. The imine linkages were then stabilized by Na cyanoborohydride to form sec. amine linkages. The resultant crosslinked material may be employed as a biomaterial or as a biomaterial coating.

IC ICM A61L027-00
CC 63-7 (Pharmaceuticals)
IT Anti-inflammatory agents
Antibacterial agents
Antibiotics
Anticoagulants
Antimicrobial agents
Bone
Ceramic coatings
Drugs
Dyes
Immobilization, biochemical
Medical goods
Oxidation
Oxidizing agents
Prosthetic materials and Prosthetics
Reducing agents
Skin
Tooth
Wood
(attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Antibodies
Antigens
Blood-coagulation factors
Cell adhesion molecules
Cytokines
Enzymes, processes
Growth factors, animal
Hormones, animal, processes
Immunoglobulins
Ligands
Neurotransmitters
Peptides, processes
Proteins, specific or class
Proteoglycans, processes
Toxins
Transport proteins
Vitamins
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Catalysts
(biochem.; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, general, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(blood; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, specific or class
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(fibrous; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, specific or class
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(globular; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)

IT Animal tissue
(human; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, specific or class
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(immunity; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, specific or class
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(membrane; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Platelet (blood)
(proteins of; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, specific or class
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(regulatory; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT DNA
RNA
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(segments; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT Proteins, specific or class
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(structural; attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT 79-10-7D, Acrylic acid, esters, polymers 1306-06-5, Hydroxyapatite 1344-28-1, Aluminum oxide (Al2O3), biological studies 7440-06-4, Platinum, biological studies 7440-32-6, Titanium, biological studies 8049-15-8, Elgiloy 8049-28-3, Stellite 9002-84-0 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-31-0, Polyisoprene 9003-39-8, Polyvinylpyrrolidone 9003-53-6, Polystyrene 9004-34-6, Cellulose, biological studies 11110-83-1 12597-68-1, Stainless steel, biological studies 12646-94-5, MP35N
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
IT 79-10-7D, Acrylic acid, esters, polymers 9004-34-6, Cellulose, biological studies
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(attachment of biomols. to surfaces of medical devices for improvement of biocompatibility)
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (CA INDEX NAME)



RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 33 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:265982 HCAPLUS Full-text
DOCUMENT NUMBER: 130:316630
TITLE: Medicinal carrier particle for tissue-specific application
INVENTOR(S): Mueller, Rainer; Lueck, Martin; Kreuter, Joerg
PATENT ASSIGNEE(S): DDS Drug Delivery Service Gesellschaft zur Foerderung der Forschung in pharmazeutischer Technologie und Biopharmazie m.b.H., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19745950	A1	19990422	DE 1997-19745950	19971017
CA 2308236	A1	19990429	CA 1998-2308236	19981013
WO 9920256	A2	19990429	WO 1998-EP6429	19981013
WO 9920256	A3	19990819		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9912272	A	19990510	AU 1999-12272	19981013
EP 1023052	A2	20000802	EP 1998-955425	19981013
EP 1023052	B1	20030910		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002521311	T	20020716	JP 2000-516655	19981013
EP 1300139	A2	20030409	EP 2003-323	19981013
EP 1300139	A3	20040128		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
AT 249209	T	20030915	AT 1998-955425	19981013
US 6288040	B1	20010911	US 2000-529600	20000621
AU 2003200687	A1	20030501	AU 2003-200687	20030225

PRIORITY APPLN. INFO.:			
DE 1997-19745950	A	19971017	
AU 1999-12272	A3	19981013	
EP 1998-955425	A3	19981013	
WO 1998-EP6429	W	19981013	

AB Drug carrier particles are provided for delivery of drugs across the blood-brain barrier to the central nervous system for treatment of central nervous disorders. The particles, in drug-loaded or drug-free form, bear on their surface ≥1 covalently bound or adsorbed recognition protein (e.g. an apolipoprotein) for receptors in the brain or blood-brain barrier, or the particle surface is modified (e.g. with an ethoxylated surfactant) so that a recognition protein is bound on contact with the particle. Thus, poly(Bu cyanoacrylate) nanoparticles loaded with the analgesic, dalargin, were surface modified with Tween 80 and incubated with apolipoprotein E. Administration of

these nanoparticles i.v. to mice produced an analgesic effect, as shown in the tail-flick test.

IC ICM A61K009-14
CC 63-6 (Pharmaceuticals)
IT Proteins, general, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(blood, recognition, adsorption on drug carrier particles; medicinal carrier particle for tissue-specific application to brain)
IT Drug delivery systems
(carriers, particles; medicinal carrier particle for tissue-specific application to brain)
IT Polyoxyalkylenes, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(derivs. with surfactants, drug carrier particle surface activation with; medicinal carrier particle for tissue-specific application to brain)
IT Plasma
Surfactants
(drug carrier particle surface activation with; medicinal carrier particle for tissue-specific application to brain)
IT Blood cell
Bone marrow
Liver
Neoplasm
Spleen
(drug targeting to; medicinal carrier particle for tissue-specific application to brain)
IT Drug delivery systems
(emulsions; medicinal carrier particle for tissue-specific application to brain)
IT Drug delivery systems
(liposomes, phospholipid; medicinal carrier particle for tissue-specific application to brain)
IT Phospholipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(liposomes; medicinal carrier particle for tissue-specific application to brain)
IT Analgesics
Drug targeting
Nervous system agents
(medicinal carrier particle for tissue-specific application to brain)
IT Drug delivery systems
(microparticles; medicinal carrier particle for tissue-specific application to brain)
IT Drug delivery systems
(nanoparticles; medicinal carrier particle for tissue-specific application to brain)
IT Adsorption
Immobilization, biochemical
(of recognition proteins on drug carrier particles; medicinal carrier particle for tissue-specific application to brain)
IT Albumins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(recognition proteins; medicinal carrier particle for tissue-specific application to brain)
IT Proteins, general, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(recognition, adsorption on drug carrier particles; medicinal carrier particle for tissue-specific application to brain)

IT Drug delivery systems
(suspensions, nano-; medicinal carrier particle for tissue-specific application to brain)

IT Drug delivery systems
(sustained-release; medicinal carrier particle for tissue-specific application to brain)

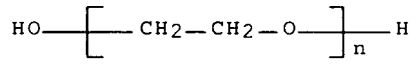
IT 98-59-9, Tosyl chloride 111-30-8, Glutardialdehyde 151-51-9, Carbodiimide 463-73-0D, Chloroformic acid, esters 506-68-3, Cyanogen bromide 7790-21-8, Potassium periodate 7790-28-5, Sodium periodate 16357-59-8, N-Ethoxycarbonyl-2-ethoxy-1,2-dihydroquinoline 25322-68-3D, PEG, derivs. with surfactants
RL: RCT (Reactant); RACT (Reactant or reagent)
(drug carrier particle surface activation with; medicinal carrier particle for tissue-specific application to brain)

IT 79-10-7D, Acrylic acid, polymers 9002-89-5, Poly(vinyl alcohol) 9002-98-6 9003-39-8, PVP 9004-32-4, Sodium CM-cellulose 9004-34-6, Cellulose, biological studies 9004-34-6D, Cellulose, derivs., biological studies 9004-54-0, Dextran, biological studies 9004-54-0D, Dextran, derivs., biological studies 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-25-8, Starch, biological studies 9005-25-8D, Starch, derivs., biological studies 9005-63-4D , esters with fatty acids 9005-64-5, Tween 20 9005-65-6 , Tween 80 9005-66-7, Tween 40 9005-67-8, Tween 60 11138-66-2, Xanthan 31694-55-0D, triesters with fatty acids 106392-12-5, Poloxamer 110617-70-4, Poloxamine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug carrier particle surface activation with; medicinal carrier particle for tissue-specific application to brain)

IT 25322-68-3D, PEG, derivs. with surfactants
RL: RCT (Reactant); RACT (Reactant or reagent)
(drug carrier particle surface activation with; medicinal carrier particle for tissue-specific application to brain)

RN 25322-68-3 HCAPLUS

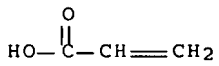
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- (CA INDEX NAME)



IT 79-10-7D, Acrylic acid, polymers 9002-89-5, Poly(vinyl alcohol) 9004-32-4, Sodium CM-cellulose 9004-34-6, Cellulose, biological studies 9004-34-6D, Cellulose, derivs., biological studies 9004-54-0, Dextran, biological studies 9004-54-0D, Dextran, derivs., biological studies 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9004-65-3, Hydroxypropylmethylcellulose 9004-67-5, Methylcellulose 9005-25-8, Starch, biological studies 9005-25-8D, Starch, derivs., biological studies 9005-63-4D, esters with fatty acids 9005-64-5, Tween 20 9005-65-6, Tween 80 9005-66-7, Tween 40 9005-67-8, Tween 60 11138-66-2, Xanthan 31694-55-0D, triesters with fatty acids 106392-12-5,

Poloxamer
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(drug carrier particle surface activation with; medicinal carrier particle for tissue-specific application to brain)

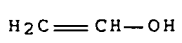
RN 79-10-7 HCAPLUS
CN 2-Propenoic acid (CA INDEX NAME)



RN 9002-89-5 HCAPLUS
CN Ethenol, homopolymer (CA INDEX NAME)

CM 1

CRN 557-75-5
CMF C2 H4 O



RN 9004-32-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt (CA INDEX NAME)

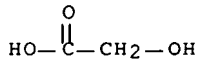
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-54-0 HCAPLUS
CN Dextran (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9004-62-0 HCAPLUS
CN Cellulose, 2-hydroxyethyl ether (CA INDEX NAME)

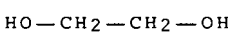
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 107-21-1
CMF C2 H6 O2



RN 9004-64-2 HCAPLUS
CN Cellulose, 2-hydroxypropyl ether (CA INDEX NAME)

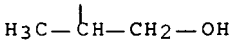
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 57-55-6
CMF C3 H8 O2



RN 9004-65-3 HCAPLUS
CN Cellulose, 2-hydroxypropyl methyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

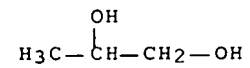
CM 2

CRN 67-56-1
CMF C H4 O

$H_3C—OH$

CM 3

CRN 57-55-6
CMF C3 H8 O2



RN 9004-67-5 HCAPLUS
CN Cellulose, methyl ether (CA INDEX NAME)

CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1
CMF C H4 O

$H_3C—OH$

RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-25-8 HCAPLUS
CN Starch (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-63-4 HCAPLUS

CN Sorbitan, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-64-5 HCAPLUS
CN Sorbitan, monododecanoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

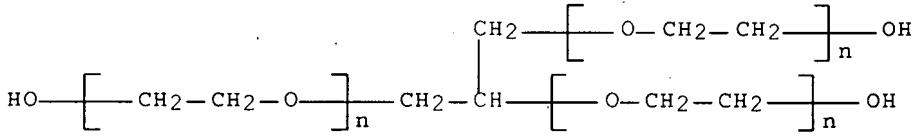
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-65-6 HCAPLUS
CN Sorbitan, mono-(9Z)-9-octadecenoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-66-7 HCAPLUS
CN Sorbitan, monohexadecanoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 9005-67-8 HCAPLUS
CN Sorbitan, monooctadecanoate, poly(oxy-1,2-ethanediyl) derivs. (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 11138-66-2 HCAPLUS
CN Xanthan gum (CA INDEX NAME)

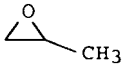
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN 31694-55-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α',α''-1,2,3-propanetriyltris[ω-hydroxy- (CA INDEX NAME)



RN 106392-12-5 HCAPLUS
CN Oxirane, 2-methyl-, polymer with oxirane, block (CA INDEX NAME)

CM 1

CRN 75-56-9
CMF C3 H6 O



CM 2

CRN 75-21-8
CMF C2 H4 O

L38 ANSWER 34 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:640410 HCAPLUS Full-text
DOCUMENT NUMBER: 129:257358
TITLE: Methods for natural product and drug screening using encapsulated cells or microorganisms
INVENTOR(S): Nasby, Nicole M.; Peterson, Todd C.
PATENT ASSIGNEE(S): Chromaxome Corp., USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9841869	A1	19980924	WO 1998-US5462	19980318
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, GW, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2284066	A1	19980924	CA 1998-2284066	19980318
AU 9865715	A	19981012	AU 1998-65715	19980318
EP 975969	A1	20000202	EP 1998-911863	19980318
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.:

US 1997-40888P	P	19970318
US 1998-71046P	P	19980113
WO 1998-US5462	W	19980318

AB The present invention relates to an integrated approach to drug screening that is designed to couple a screening assay both temporally and spatially to natural product synthesis in a microorganism. The present invention provides a screening unit which is a gel droplet comprising a producing species that produces natural products for the drug screen, and an assay system that detects or measures a desired biol. activity. A producing species is coencapsulated with an assay system in a screening unit when the producing species is at a phase in its life cycle that is optimal for producing natural products, such as secondary metabolites. The producing species is spatially positioned relative to the assay system in the same unit such that compds. produced by the producing species can come into contact with the assay system. If a compound possesses the desired activity, the assay system will generate a signal that enables the identification and/or isolation of the screening unit. The present invention also provides methods for forming a screening unit, and methods for using a screening unit in drug screening. The methods are useful

for screening naturally occurring organisms as well as genetically engineered cells, and solid carriers containing chems.

IC ICM G01N033-549

CC 9-11 (Biochemical Methods)
Section cross-reference(s): 1, 3, 10, 26

IT Drug delivery systems
(carriers; methods for natural product and drug screening using encapsulated cells or microorganisms)

IT Animal cell
(mammalian; methods for natural product and drug screening using encapsulated cells or microorganisms)

IT Actinomycetes
Algae
Antibiotics
Bacteria (Eubacteria)
Carriers
Cell
Combinatorial chemistry
Combinatorial library
Conjugation (genetic)
Drug screening
Drugs
Encapsulation
Escherichia coli
Eukaryote (Eukaryotae)
Fungi
Gels
Genetic engineering
Genetic selection
Immobilization, biochemical
Immobilization, biochemical
Infection
Insect (Insecta)
Invertebrate
Mammal (Mammalia)
Microorganism
Myxobacteria
Myxococcus xanthus
Neoplasm
Parasite
Parasitic worm
Pathogen
Peptide library
Plant (Embryophyta)
Plant cell
Prokaryote
Protozoa
Streptomyces
Streptomyces arenae
Streptomyces aureofaciens
Streptomyces clavuligerus
Streptomyces coelicolor
Streptomyces fradiae
Streptomyces griseus
Streptomyces lavendulae
Streptomyces lividans
Streptomyces parvulus
Streptomyces roseosporus
Streptomyces toyocaensis
Streptomyces venezuelae

Transcription, genetic
Vertebrate (Vertebrata)
Virus
(methods for natural product and drug screening using encapsulated cells or microorganisms)

IT Immobilization, biochemical
(microbial cell; methods for natural product and drug screening using encapsulated cells or microorganisms)

IT DNA
Proteins, specific or class
RL: BPR (Biological process); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(recombinant; methods for natural product and drug screening using encapsulated cells or microorganisms)

IT 9000-07-1, Carrageenan 9000-69-5, Pectin 9003-05-8, Polyacrylamide 9004-34-6, Cellulose, analysis 9005-32-7, Alginic acid 9012-36-6, Agarose 9012-76-4, Chitosan
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods for natural product and drug screening using encapsulated cells or microorganisms)

IT 9005-38-3, Sodium alginate 55353-13-4, Diaion HP 20
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(methods for natural product and drug screening using encapsulated cells or microorganisms)

IT 9000-07-1, Carrageenan 9000-69-5, Pectin 9004-34-6, Cellulose, analysis 9005-32-7, Alginic acid 9012-36-6, Agarose 9012-76-4, Chitosan
RL: ARU (Analytical role, unclassified); BUU (Biological use, unclassified); DEV (Device component use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(methods for natural product and drug screening using encapsulated cells or microorganisms)

RN 9000-07-1 HCAPLUS
CN Carrageenan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9000-69-5 HCAPLUS
CN Pectin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9005-32-7 HCAPLUS
CN Alginic acid (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-36-6 HCAPLUS
CN Agarose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9005-38-3, Sodium alginate
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(methods for natural product and drug screening using encapsulated cells or microorganisms)
RN 9005-38-3 HCAPLUS
CN Alginic acid, sodium salt (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 35 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:702155 HCAPLUS Full-text
DOCUMENT NUMBER: 123:93296
TITLE: Biochemically active agents for chemical catalysis and cell receptor activation
INVENTOR(S): Kossovsky, Nir; Sponsler, Edward; Gelman, Andrew; Hnatyszyn, H. James; Rajguru, Samir
PATENT ASSIGNEE(S): Regents of the University of California, USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

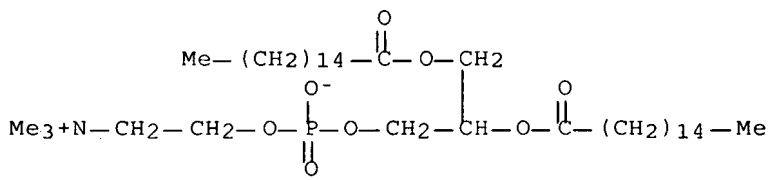
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9512392	A1	19950511	WO 1994-US12515	19941031
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5460830	A	19951024	US 1993-145870	19931101
US 5462751	A	19951031	US 1993-146536	19931101
US 5460831	A	19951024	US 1993-147751	19931104
EP 726767	A1	19960821	EP 1995-901094	19941031
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 09504790	T	19970513	JP 1994-513349	19941031
PRIORITY APPLN. INFO.:			US 1993-145870 A	19931101
			US 1993-146536 A	19931101
			US 1993-147751 A	19931104
			US 1990-542255 A2	19900622
			US 1991-690601 A2	19910424
			US 1993-199 A2	19930104
			WO 1994-US12515 W	19941031

AB A biol. active composition is made up of core particles or surfaces coated with a layer which is designed to allow attachment of biochem. reactive pairs (BRP's) without denaturing the BRP. BRPs which may be attached include ligand-receptor pairs, enzyme-substrate pairs, drug-receptor pairs, catalyst-reactant pairs, toxin-ligand pairs, absorbent-absorbate pairs, and adsorbent-adsorbate pairs. Also disclosed are biol. active compns. made up of biodegradable core particles coated with a layer that is designed to allow attachment of biol. active agents without denaturing them. The compns. may further include an exterior targeting membrane which provides selective targeting to specific receptors. Biol. active compns. for use in gene therapy and other transfection procedures are composed of nanocryst. core particles coated with a layer that is designed to allow attachment of transfection agents (DNA/RNA segments or antisense fragments) without denaturing them, and an exterior targeting membrane for selective targeting of the transfection agents to specific cell receptors.

IC ICM A61K009-54
ICS A61K009-56
CC 63-6 (Pharmaceuticals)
IT Catalysts and Catalysis
(-reactant complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT Agglutinins and Lectins
Hormones
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(-receptor complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT Enzymes
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(-substrate complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT Adsorption
Ceramic materials and wares
Immobilization, biochemical
Particles
Transformation, genetic
(biochem. active agents for chemical catalysis and cell receptor activation)
IT Albumins, biological studies
Alloys, biological studies
Deoxyribonucleic acids
Glass, oxide
Hemoglobins
Hemoglobins, carbonyl-
Immune complexes
Intermetallic compounds
Metals, biological studies
Polymers, biological studies
Ribonucleic acids
Transferrins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(biochem. active agents for chemical catalysis and cell receptor activation)
IT Phospholipids, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coatings; biochem. active agents for chemical catalysis and cell receptor activation)
IT Proteins, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes with carboxypeptidase A; biochem. active agents for chemical catalysis and cell receptor activation)
IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ligand complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(adrenergic, complexes with epinephrine; biochem. active agents for chemical catalysis and cell receptor activation)
IT Ribonucleic acids
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(complexes, with RNase; biochem. active agents for chemical catalysis and cell receptor activation)
IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(glycinergic, complexes with strychnine; biochem. active agents for

chemical catalysis and cell receptor activation)
IT Lipoproteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high-d., -receptor complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT Lipoproteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(low-d., biochem. active agents for chemical catalysis and cell receptor activation)
IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(opioid, complexes with methadone; biochem. active agents for chemical catalysis and cell receptor activation)
IT Receptors
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical, biochem. active agents for chemical catalysis and cell receptor activation)
IT Proteins, specific or class
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ribosomal, -receptor complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT 1398-61-4, Chitin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lysozyme complexes; biochem. active agents for chemical catalysis and cell receptor activation)
IT 57-88-5, Cholesterol, biological studies 2644-64-6 3036-82-6, Dipalmitoylphosphatidylserine
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(membrane containing; biochem. active agents for chemical catalysis and cell
receptor activation)
IT 1398-61-4, Chitin
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(lysozyme complexes; biochem. active agents for chemical catalysis and cell receptor activation)
RN 1398-61-4 HCAPLUS
CN Chitin (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
IT 2644-64-6
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(membrane containing; biochem. active agents for chemical catalysis and cell
receptor activation)
RN 2644-64-6 HCAPLUS
CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide (CA INDEX NAME)



L38 ANSWER 36 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:158205 HCAPLUS Full-text
DOCUMENT NUMBER: 120:158205
TITLE: Method for preparing carrier-immobilized physiologically active substances using p-toluenesulfonyl ester-containing coupling agents
INVENTOR(S): Yokota, Hideyuki; Seko, Masahiro; Inamori, Kazunori; Tanaka, Masakazu
PATENT ASSIGNEE(S): Toyo Boseki, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05253290	A	19931005	JP 1992-86375	19920309
PRIORITY APPLN. INFO.:			JP 1992-86375	19920309

AB The title method uses a hydrophilic spacer containing p-toluenesulfonyl ester on both ends for reacting with the nucleophilic substitution group on the surface of a water-insol. carrier and for immobilizing a physiol. active substance. The method is useful in preparing catalysts for chemical reactions, affinity adsorbents for purification, clin. examns., or other medical uses. Cellulose-tetraethylenebenzamine was prepared by reacting aldehydocellulose (derived from cellulose) with tetraethylenebenzamine and used for immobilizing antibody for low-d. lipoprotein determination in blood.

IC ICM A61L031-00
ICA A61M001-36
CC 9-16 (Biochemical Methods)
Section cross-reference(s): 7, 15, 16
IT Catalysts and Catalysis
(immobilization of, spacer containing p-toluenesulfonyl esters and nucleophilic group-containing carriers for)
IT Immobilization, biochemical
(of physiol. active substances, spacer containing p-toluenesulfonyl esters for)
IT Lipoproteins
RL: ANST (Analytical study)
(low-d., antibody to, immobilization of, on carrier, for low-d. lipoprotein determination in blood)
IT 9004-34-6, Cellulose, reactions 22029-43-2 73342-22-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of cellulose-immobilized antibody for low-d. lipoprotein determination in blood)
IT 9004-34-6, Cellulose, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of cellulose-immobilized antibody for low-d. lipoprotein determination in blood)
RN 9004-34-6 HCAPLUS
CN Cellulose (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 37 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1992:566675 HCAPLUS Full-text
DOCUMENT NUMBER: 117:166675
TITLE: Immobilization of lipolytic enzyme on lipid-coated

carriers for esterification and interesterification

INVENTOR(S): Yokomichi, Hideki; Yasumasu, Takeshi; Nakamura, Kazuhiro; Kawahara, Yoshiharu

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: U.S., 14 pp. Cont. of U.S. Ser. No. 276,374, abandoned.
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5128251	A	19920707	US 1991-685158	19910412
JP 01153090	A	19890615	JP 1987-311549	19871209
JP 07010231	B	19950208		
JP 01153097	A	19890615	JP 1987-311551	19871209
JP 06065312	B	19940824		
JP 01174384	A	19890710	JP 1987-335854	19871228
JP 07012310	B	19950215		

PRIORITY APPLN. INFO.:

JP 1987-311549	A	19871209
JP 1987-311551	A	19871209
JP 1988-311550	A	19871209
JP 1987-335854	A	19871228
US 1988-276374	B1	19881123

AB A method for immobilizing lipolytic enzymes to improve yields in enzymic modification of lipids is described. An insol. carrier is coated with a lipid (fatty acids or fatty acid derivs.) and the enzyme is adsorbed onto the treated matrix. The preferred carrier is a phenol-formaldehyde resin and the enzyme may be a lipase, phospholipase, cholesterol esterase, or sphingomyelinase. Duolite A-568 10 g was mixed with oleic acid 2 g in water 100 mL and incubated at 30° for 30 min. The resin was washed, dried and mixed with Rhizopus japonicus lipase 10 g in 100 mL 10 mM acetate buffer pH 4.5 and stirred for two hours before drying to 5% moisture to give a carrier with an adsorption ratio of 96%. In an esterification reaction using the immobilized lipase 1, glycerol 23, and oleic acid 70.5 g the esterification ratio of the reaction was 87% after 3 h compared to 11% using a lipase immobilized by a method of the prior art.

IC ICM C12P007-64
ICS C12P007-62; C12N011-08

INCL 435134000

CC 7-7 (Enzymes)
Section cross-reference(s): 16

IT Esterification catalysts
Transesterification catalysts
(lipase immobilized on fatty acid-coated phenol-formaldehyde resins as)

IT Phosphatidic acids
Phosphatidylcholines, uses
Phosphatidylethanolamines
Phosphatidylinositols
Phosphatidylserines
RL: USES (Uses)
(lipolytic enzyme immobilization on phenol-formaldehyde resin coated with)

IT Immobilization, biochemical
(of lipid-hydrolyzing enzymes, on fatty acid-coated supports)

IT Enzymes
RL: PROC (Process)
(lipid-degrading, immobilization of, on fatty acid-coated support)

IT 1344-28-1, Neobead D, biological studies 7631-86-9, Silica, biological studies 9003-35-4, Phenol, polymer with formaldehyde 9012-76-4, Chitopearl BC-3000 37251-30-2, Duolite A-7 55914-96-0, Diaion WA30 73560-83-5, Duolite A-368 89382-97-8, Flowrite R 91931-88-3, Duolite ES-771 116283-60-4, Duolite A-568 143748-74-7, Duolite ES 562 143748-75-8, Duolite S 672
RL: BIOL (Biological study)
(fatty acid-coated, immobilization of lipases on)
IT 9012-76-4, Chitopearl BC-3000
RL: USES (Uses)
(fatty acid-coated, immobilization of lipases on)
RN 9012-76-4 HCAPLUS
CN Chitosan (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L38 ANSWER 38 OF 38 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:502694 HCAPLUS Full-text
DOCUMENT NUMBER: 111:102694
TITLE: Immobilized biomolecules and method of making same
INVENTOR(S): Hoffman, Allan S.; Dong, Liang C.
PATENT ASSIGNEE(S): Washington Research Foundation, USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4829098	A	19890509	US 1986-876247	19860619
US 5034428	A	19910723	US 1989-348049	19890504

PRIORITY APPLN. INFO.: US 1986-876247 A1 19860619

AB Biomols. or monomer-conjugated biomols. are grafted with free monomer onto a hydrophilic, solid-phase, polymeric substrate which has been preirradiated with ionizing radiation for immobilization. The products may be used for therapeutic or diagnostic applications or bioseparations. Asparaginase in TRIS buffer and N-hydroxysuccinimide methacrylate ester (preparation given) were mixed and the mixture was passed through Sephadex G-25 column to obtain the monomer-conjugated asparaginase. Sep., cellulose sheets were exposed to 2.67 Mrads from 60Co at a dose rate of 0.37 Mrads/h at the radiation temperature of -78° in a tube and a mixture of 20% acrylamide-grafting solution and the monomer-conjugated asparaginase was sparged into the tube. The immobilized enzyme sheets were subjected to the enzyme assay; asparaginase activity per sheet was 0.108 IU, compared to 0.000 IU in controls with no preirradn. of cellulose sheets or with no use of acrylamide grafting solution The immobilized asparaginase can be used for the treatment of malignant diseases without repeated injections.

IC ICM C08J003-28
ICS C12N011-00; C12N011-12
INCL 522005000
CC 63-5 (Pharmaceuticals)
Section cross-reference(s): 5, 7, 9
IT Catalysts and Catalysis
Dyes
Insecticides
Pesticides
Pharmaceuticals
Antibodies

```
     Antigens
     Deoxyribonucleic acids
       Enzymes
     Fertilizers
     Hormones
     Nucleic acids
       Ribonucleic acids
     Vitamins
     RL: PROC (Process)
        (immobilization of, on polymeric substrates)
IT   Immobilization, biochemical
        (on polymeric substrates, preirradn. of substrates for)
IT   Polysaccharides, biological studies
     RL: BIOL (Biological study)
        (substrate, irradiation of, for immobilization of biomols.)
IT   9004-34-6, Cellulose, biological studies 9004-54-0,
     Dextran, biological studies 9012-36-6, Agarose
     RL: BIOL (Biological study)
        (substrate, irradiation of, for immobilization of biomols.)
IT   9004-34-6, Cellulose, biological studies 9004-54-0,
     Dextran, biological studies 9012-36-6, Agarose
     RL: BIOL (Biological study)
        (substrate, irradiation of, for immobilization of biomols.)
RN   9004-34-6  HCAPLUS
CN   Cellulose  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9004-54-0  HCAPLUS
CN   Dextran  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
RN   9012-36-6  HCAPLUS
CN   Agarose  (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***


=> d que l46
L40          170 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ("AMIJI M"/AU OR "AMIJI M
                 M"/AU OR "AMIJI MANSOOR"/AU OR "AMIJI MANSOOR M"/AU OR "AMIJI
                 MANSOOR MUSTAFA"/AU)
L41            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  ("TAQIEDDIN EHAB"/AU OR
                 "TAQIEDDIN EHAB S"/AU)
L42          170 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L40 OR L41)
L43            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L42 AND ?CATAL?
L44            4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L42 AND IMMOBIL?
L45           14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L42 AND PERMEABIL?
L46           16 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L43 OR L44 OR L45)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YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y


L46  ANSWER 1 OF 16  HCAPLUS  COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:         2007:688934  HCAPLUS  Full-text
DOCUMENT NUMBER:          147:150314
TITLE:                    Poly(ethylene glycol)-modified Nanocarriers for
                          Tumor-targeted and Intracellular Delivery
```

AUTHOR(S): van Vlerken, Lilian E.; Vyas, Tushar K.; Amiji, Mansoor M.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, School of Pharmacy, Northeastern University, Boston, MA, 02115, USA
SOURCE: Pharmaceutical Research (2007), 24(8), 1405-1414
CODEN: PHREEB; ISSN: 0724-8741
PUBLISHER: Springer
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. The success of anti-cancer therapies largely depends on the ability of the therapeutics to reach their designated cellular and intracellular target sites, while minimizing accumulation and action at non-specific sites. Surface modification of nanoparticulate carriers with poly(ethylene glycol) (PEG)/poly(ethylene oxide) (PEO) has emerged as a strategy to enhance solubility of hydrophobic drugs, prolong circulation time, minimize non-specific uptake, and allow for specific tumor-targeting through the enhanced permeability and retention effect. Furthermore, PEG/PEO modification has emerged as a platform for incorporation of active targeting ligands, thereby providing the drug and gene carriers with specific tumor-targeting properties through a flexible tether. This review focuses on the recent developments surrounding such PEG/PEO-surface modification of polymeric nanocarriers to promote tumor-targeting capabilities, thereby enhancing efficacy of anti-cancer therapeutic strategies.
REFERENCE COUNT: 83 THERE ARE 83 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:225095 HCAPLUS Full-text
DOCUMENT NUMBER: 147:38204
TITLE: RGD-modified liposomes for tumor targeting
AUTHOR(S): Dubey, P. K.; Mahor, S.; Vyas, S. P.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, Dr. H. S. Gold University, Sagar, India
SOURCE: Nanotechnology for Cancer Therapy (2007), 643-661, 1 plate. Editor(s): Amiji, Mansoor M. CRC Press LLC: Boca Raton, Fla.
CODEN: 69IXKK; ISBN: 978-0-8493-7194-3
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review on tumor vasculature targeting using RGD peptides immobilized on liposome surface. The role of RGD in integrin- and fibronectin-mediated bioevents is discussed.
REFERENCE COUNT: 97 THERE ARE 97 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:225075 HCAPLUS Full-text
DOCUMENT NUMBER: 147:38184
TITLE: Polymeric nanoparticles for tumor-targeted drug delivery
AUTHOR(S): Betancourt, Tania; Doiron, Amber; Brannon-Peppas, Lisa
CORPORATE SOURCE: The University of Texas at Austin, Austin, TX, USA
SOURCE: Nanotechnology for Cancer Therapy (2007), 215-229. Editor(s): Amiji, Mansoor M. CRC Press LLC: Boca Raton, Fla.
CODEN: 69IXKK; ISBN: 978-0-8493-7194-3
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

AB A review on the use of polymeric nanoparticles as targeted systems for cancer detection and treatment. The targeting of nanoparticles to cancer is discussed, along with passive targeting and the enhanced permeability and retention effect, targeting to angiogenesis, targeting using folate receptors, approaches for cancer targeting to specific cancer types, targeted nanoparticles and imaging of cancer, other targets for cancer, and avidin and biotin targeting.

REFERENCE COUNT: 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2007:155574 HCAPLUS Full-text

DOCUMENT NUMBER: 146:343882

TITLE: Biodistribution and pharmacokinetic analysis of long-circulating thiolated gelatin nanoparticles following systemic administration in breast cancer-bearing mice

AUTHOR(S): Kommareddy, Sushma; Amiji, Mansoor

CORPORATE SOURCE: Department of Pharmaceutical Sciences, School of Pharmacy, Northeastern University, Boston, MA, 02115, USA

SOURCE: Journal of Pharmaceutical Sciences (2006), Volume Date 2007, 96(2), 397-407
CODEN: JPMSAE; ISSN: 0022-3549

PUBLISHER: Wiley-Liss, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The objective of the present study was to modify thiolated gelatin nanoparticles with poly(ethylene glycol) (PEG) chains and examine their long circulating and tumor-targeting properties in vivo in an orthotopic a human breast adenocarcinoma xenograft model. The crosslinked nanoparticle systems were characterized to have a size of 150-250 nm with rapid payload release properties in a highly reducing environment. Upon PEG modification, the nanoparticle size increased to 300-350 nm in diameter The presence of PEG chains on the surface was confirmed by characterization with electron spectroscopy for chemical anal. The in vivo long-circulating potential, biodistribution and passive tumor targeting of the controls, and PEG-modified thiolated gelatin nanoparticles were evaluated by injecting indium-111 (111In)-labeled nanoparticles into breast tumor (MDA-MB-435)-bearing nude mice. Upon modification with PEG, the nanoparticles were found to have longer circulation times, with the plasma and tumor half-lives of 15.3 and 37.8 h, resp. The results also showed preferential localization of thiolated nanoparticles in the tumor mass. The resulting nanoparticulate systems with long circulation properties could be used to target encapsulated drugs and genes to tumors passively by utilizing the enhanced permeability and retention effect of the tumor vasculature.

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:1017743 HCAPLUS Full-text

DOCUMENT NUMBER: 142:468935

TITLE: Water soluble lipopolymers for gene delivery

AUTHOR(S): Mahato, Ram I.; Kim, Sung Wan

CORPORATE SOURCE: University of Tennessee Health Science Center, Memphis, TN, USA

SOURCE: Polymeric Gene Delivery (2005), 175-186. Editor(s): Amiji, Mansoor M. CRC Press LLC: Boca Raton, Fla.
CODEN: 69GCXS; ISBN: 0-8493-1934-X

DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review. The development of an efficient water-soluble lipopolymer will play an important role in gene delivery after local and systemic administrations. A water-soluble lipopolymer has been designed using the polyethylenimine secondary amines for cholesterol conjugation. While significant advantage was achieved with respect to making a water-soluble lipopolymer for gene delivery without the use of organic solvents and with enhanced efficiency of transfection, further strides in nonviral gene therapy will come only through the use of a mechanism for cell membrane adhesion of the complexes and enhanced cellular permeability.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:43176 HCAPLUS Full-text
DOCUMENT NUMBER: 141:94210
TITLE: Enzyme immobilization in novel alginate-chitosan core-shell microcapsules
AUTHOR(S): Taqieddin, Ehab; Amiji, Mansoor
CORPORATE SOURCE: School of Pharmacy, Department of Pharmaceutical Sciences, Northeastern University, Boston, MA, 02115, USA
SOURCE: Biomaterials (2004), 25(10), 1937-1945
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Alginate-chitosan core-shell microcapsules were prepared in order to develop a biocompatible matrix for enzyme immobilization, where the protein is retained either in a liquid or solid core and the shell allows permeability control over substrates and products. The permeability coeffs. of different mol. weight compds. (vitamin B2, vitamin B12, and myoglobin) were determined through sodium tripolyphosphate (Na-TPP)-crosslinked chitosan membrane. The microcapsule core was formed by crosslinking sodium alginate with either calcium or barium ions. The crosslinked alginate core was uniformly coated with a chitosan layer and crosslinked with Na-TPP. In the case of calcium alginate, the phosphate ions of Na-TPP were able to extract the calcium ions from alginate and liquefy the core. A model enzyme, β-galactosidase, was immobilized in the alginate core and the catalytic activity was measured with o-nitrophenyl-β-D-galactopyranoside (ONPG). Change in the activity of free and immobilized enzyme was determined at three different temps. Na-TPP crosslinked chitosan membranes were found to be permeable to solutes of up to 17,000 Da mol. weight The enzyme loading efficiency was higher in the barium alginate core (100%) as compared to the calcium alginate core (60%). The rate of ONPG conversion to o-nitrophenol was faster in the case of calcium alginate-chitosan microcapsules as compared to barium alginate-chitosan microcapsules. Barium alginate-chitosan microcapsules, however, did improve the stability of the enzyme at 37°C relative to calcium alginate-chitosan microcapsules or free enzyme. This study illustrated a new method of enzyme immobilization for biotechnol. applications using liquid or solid core and shell microcapsule technol.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:570928 HCAPLUS Full-text
DOCUMENT NUMBER: 139:122717
TITLE: Hybrid immobilized catalytic system with controlled permeability

INVENTOR(S): Amiji, Mansoor M.; Taqieddin, Ehab S.
PATENT ASSIGNEE(S): Northeastern University, USA
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003059848	A2	20030724	WO 2003-US738	20030110
WO 2003059848	A3	20031120		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003207508	A1	20030730	AU 2003-207508	20030110
US 2004266026	A1	20041230	US 2004-501130	20040712
PRIORITY APPLN. INFO.:			US 2002-347234P P	20020110
			WO 2003-US738 W	20030110

AB An immobilized catalytic system comprising a carrier layer containing a catalytic entity and a permeable screening layer for providing controlled access between the immobilizing catalytic entity and the surrounding environment and methods of making such systems are disclosed. The carrier layer includes the catalytic entity mixed with a neutral or anionic carrier polymer, which may or may not be cross-linked with a crosslinking agent. The carrier layer includes a matrix of a permeable to mols. processed by, produced by or acted upon by the catalytic entity but is not permeable to the catalytic entity itself. Any counter ion to neutral or anionic carrier polymer cannot be the same as the cationic polymer of the screening layer, and any counter ion to the cationic polymer cannot be the same as the neutral or anionic carrier polymer.

L46 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:17580 HCAPLUS Full-text
DOCUMENT NUMBER: 137:159074
TITLE: Chitosan-based delivery systems: physicochemical properties and pharmaceutical applications
AUTHOR(S): Hejazi, Radi; Amiji, Mansoor
CORPORATE SOURCE: Northeastern University, Boston, MA, USA
SOURCE: Polymeric Biomaterials (2nd Edition) (2002), 213-237. Editor(s): Dumitriu, Severian. Marcel Dekker, Inc.: New York, N. Y.
CODEN: 69CECR; ISBN: 0-8247-0569-6
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English

AB A review with refs. on the chemical structure, availability, applications, physicochem. and biol. properties of chitosan, an abundant natural polymer. Chitosan is obtained by alkaline N-deacetylation of chitin. The phys. and chemical properties of chitosan, such as inter- and intramol. hydrogen bonding and the cationic charge in acidic medium, makes this polymer attractive for

the development of conventional and novel pharmaceutical products. As a bioadhesive polymer, chitosan has been found to increase residence time of dosage forms at mucosal sites, inhibit enzymes, and increase the permeability of protein and peptide drugs across mucosal membranes.

REFERENCE COUNT: 143 THERE ARE 143 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:216162 HCAPLUS Full-text
DOCUMENT NUMBER: 135:81941
TITLE: Evaluation of the permeability and blood-compatibility properties of membranes formed by physical interpenetration of chitosan with PEO/PPO/PEO triblock copolymers
AUTHOR(S): Anderson, Derick; Nguyen, Tragiang; Lai, Phung-Kim; Amiji, Mansoor
CORPORATE SOURCE: Department of Pharmaceutical Sciences, School of Pharmacy, Northeastern University, Boston, MA, 02115, USA
SOURCE: Journal of Applied Polymer Science (2001), 80(8), 1274-1284
CODEN: JAPNAB; ISSN: 0021-8995
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In order to develop blood compatible membranes with controlled porosity, we have fabricated and examined the properties of phys. interpenetrating network (PIN) of chitosan and poly(ethylene oxide)/poly(propylene oxide)/poly(ethylene oxide) (PEO/PPO/PEO) triblock copolymers (Pluronics). Degree of equilibrium swelling, SEM, and electron spectroscopy for chemical anal. (ESCA) were used to characterize the bulk and surface properties. Vitamin B12 and human serum albumin were used as permeability markers. Platelet adhesion and activation were used to determine the blood-interaction properties of the PIN membranes. Unlike chitosan membranes that were nonporous, the chitosan-Pluronic PIN membranes were highly porous with the pore size, depending on the type of incorporated Pluronic polyol. ESCA results showed a significant increase in the -C-O- signal of C1s spectra on the PIN membranes that correlates with the presence of PEO chains on the surface. The permeability coeffs. of vitamin B12 and albumin were higher in the chitosan-Pluronic PIN membranes than in the control. The number of adherent platelets and the extent of activation were significantly reduced on the chitosan-Pluronic PIN membranes. The decrease in platelet adhesion and activation correlated pos. with the PEO chain length of the incorporated Pluronic polyols. The results of this study show that chitosan-Pluronic PIN membranes offer a blood-compatible alternative with a higher-mol.-weight cutoff for use in hemodialysis and related applications.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:722408 HCAPLUS Full-text
DOCUMENT NUMBER: 132:313448
TITLE: Membranes formed by physical interpenetration of chitosan with PEO/PPO/PEO triblock copolymers
AUTHOR(S): Nguyen, T.; Lai, P. K.; Anderson, D.; Amiji, M.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, School of Pharmacy, Northeastern University, Boston, MA, 02115, USA
SOURCE: Proceedings of the International Symposium on

Controlled Release of Bioactive Materials (1999), 26th, 637-638
CODEN: PCRMEY; ISSN: 1022-0178
PUBLISHER: Controlled Release Society, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Based on results it is possible to design chitosan-Pluronic interpenetrating polymer network membrane with controlled pore sizes using different types of Pluronics that vary in the PEO and PPO chain lengths and the concentration of the Pluronic used in the IPN. When used for microencapsulation, these membranes will be beneficial for their selective permeation properties where the products from cells or tissues can diffuse out of these membranes, but immune recognition elements would not be able to get inside.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:622937 HCAPLUS Full-text
DOCUMENT NUMBER: 131:355995
TITLE: Chitosan-Pluronic physical interpenetrating network: membrane fabrication and protein permeability studies
AUTHOR(S): Anderson, Derrick; Nguyen, Tragiang; Amiji, Mansoor
CORPORATE SOURCE: Department of Pharmaceutical Sciences, School of Pharmacy, Northeastern University, Boston, MA, 02115, USA
SOURCE: ACS Symposium Series (1999), 737(Polysaccharide Applications), 178-186
CODEN: ACSMC8; ISSN: 0097-6156
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chitosan-Pluronic phys. interpenetrating network (PIN) membranes were fabricated for potential use in microencapsulation of cells and tissues. Human serum albumin was used as a protein permeability marker to examine the permselective nature of the membranes. Scanning electron micrographs showed distinct porous surfaces and cross-sections in chitosan-Pluronic PIN membranes. The swelling studies showed that chitosan-Pluronic membranes, containing 20% (weight/weight) Pluronic F-108 had swollen extensively as compared to the control chitosan membranes in phosphate-buffered saline (pH 7.4) due to the porosity of the matrixes. The permeability coefficient of albumin increased from 2.7 + 10-8 cm2/min in chitosan membrane to 5.47 + 10-7 cm2/min in chitosan-Pluronic PIN membrane made with 20% (weight/weight) Pluronic F-108. Based on the choice of Pluronic polyol and the concentration used, the results of this study clearly show that the PIN membranes can be designed for selective permeation of microencapsulated products, while restricting immune recognition elements from going inside.
REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:514807 HCAPLUS Full-text
DOCUMENT NUMBER: 131:291153
TITLE: Evaluation of the factors influencing stomach-specific delivery of antibacterial agents for Helicobacter pylori infection
AUTHOR(S): Shah, Sweta; Qaqish, Roula; Patel, Vijay; Amiji, Mansoor
CORPORATE SOURCE: School of Pharmacy, Northeastern University, Boston,

MA, 02115, USA
SOURCE: Journal of Pharmacy and Pharmacology (1999), 51(6), 667-672
CODEN: JPPMAB; ISSN: 0022-3573
PUBLISHER: Royal Pharmaceutical Society of Great Britain
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Because Helicobacter pylori infection is localized in the gastric mucus layer and at the mucus layer-epithelial cell interface, we have developed amoxycillin- and metronidazole-containing chitosan microspheres for stomach-specific drug delivery. Drug-loaded porous chitosan microspheres were prepared by simultaneous crosslinking and precipitation with sodium tripolyphosphate. The release of antibacterial agents into simulated gastric fluid (SGF, pH 1.2), and the stability and permeability through gastric mucin, were examined at 37°C. Because of the high porosity of drug-loaded chitosan microspheres, all the amoxycillin and metronidazole were released in 2 h. High-performance liquid chromatog. assays of the antibacterial agents in SGF at 37°C indicated 40% degradation of amoxycillin after 10 h. Metronidazole was completely stable for up to 24 h in SGF. Amoxycillin and metronidazole were highly permeable through the gastric mucin gel layer. The results of this study show that acid-stable antibacterial agents, such as metronidazole, that rapidly permeate the gastric mucus layer would be very effective for the complete eradication of H. pylori infection when delivered specifically at the site of infection in the stomach.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1999:205225 HCAPLUS Full-text
DOCUMENT NUMBER: 130:227804
TITLE: Biocompatible surface modified membranes
INVENTOR(S): Amiji, Mansoor M.
PATENT ASSIGNEE(S): Northeastern University, USA
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5885609	A	19990323	US 1997-862854	19970523
PRIORITY APPLN. INFO.:			US 1997-862854	19970523

AB Articles comprise a cationic polymer which has been surface-modified by a method comprising the steps of swelling a cationic polymer in a medium having a pH value <7; applying a surface-modifying agent to the cationic polymer to form a mixture; and adjusting the pH of the mixture to a value ≥7. A preferred embodiment relates to semipermeable membranes suitable for hemodialysis made from chitosan, the surface of which has been modified by anionic polysaccharides such as dextran or heparin, or anionic polyoxyalkylenes such as acid-modified polyethylene glycol, to improve blood compatibility. Chitosan membranes were prepared and surface modified with heparin sodium or Na dextran sulfate. The permeability and blood compatibility of the membranes were determined
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L46 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:404911 HCAPLUS Full-text

DOCUMENT NUMBER: 127:99778
TITLE: Synthesis of anionic poly(ethylene glycol) derivative for chitosan surface modification in blood-contacting applications
AUTHOR(S): Amiji, Mansoor M.
CORPORATE SOURCE: Department of Pharmaceutical Sciences, Northeastern University, Boston, MA, 02115, USA
SOURCE: Carbohydrate Polymers (1997), 32(3/4), 193-199
CODEN: CAPOD8; ISSN: 0144-8617
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To improve blood compatibility, chitosan surface was modified by the complexation-interpenetration method using an anionic derivative of polyethylene glycol (PEG). PEG Me ether sulfate (MPEGS)-modified chitosan was prepared by allowing the base polymer to swell in an acidic medium, followed by polyelectrolyte complexation and interpenetration of MPEGS with the chitosan matrix. Addition of a strong base collapsed the base polymer to permanently immobilize the modifying agent on the surface. ESCA confirmed the presence of MPEGS on chitosan and the high resolution C1s peak showed an increase in -C-O- which is indicative of the ethylene oxide residues. The number of adherent platelets and the extent of platelet activation was significantly reduced on MPEGS-modified chitosan. Compared to an average of >66 fully activated platelets on unmodified chitosan surface, only 3.0 contact-adherent platelets were present on MPEGS-modified chitosan. Plasma recalcification time, a measure of the intrinsic coagulation reaction, was about 11.5 min in contact with modified chitosan. The results of this study show that chitosan surface can be modified by the complexation-interpenetration method with an anionic PEG derivative Surface-immobilized MPEGS was effective in preventing plasma protein adsorption and platelet adhesion and activation by the steric repulsion mechanism.

L46 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1997:111353 HCAPLUS Full-text
DOCUMENT NUMBER: 126:229604
TITLE: Surface modification of chitosan membranes by complexation-interpenetration of anionic polysaccharides for improved blood compatibility in hemodialysis
AUTHOR(S): Amiji, Mansoor M.
CORPORATE SOURCE: Dep. of Pharmaceutical Sciences, Northeastern University, Boston, MA, 02115, USA
SOURCE: Journal of Biomaterials Science, Polymer Edition (1996), 8(4), 281-298
CODEN: JBSEEA; ISSN: 0920-5063
PUBLISHER: VSP
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Chitosan membrane surface was modified by complexation and interpretation of anionic polysaccharides - heparin and dextran surface - for improved blood compatibility in hemodialysis. Electron spectroscopy for chemical anal. results showed a characteristic sulfur (S) and sodium (Na) peaks after modification with dextran sulfate. The sulfur/carbon (S/C) atomic composition ratio increased from 0.03 to 0.08 when the bulk dextran sulfate concentration used for modification was increased from 2.5 to 10 mg ml-1. The permeability of urea and creatinine did not change significantly upon modification with heparin or dextran sulfate. Surface modification, however, did decrease the permeability coeffs. of glucose, vitamin B-2, and vitamin B-12. Unlike Cuprophan, chitosan and surface-modified chitosan membranes did not

significantly activate the complement system as measured by the serum iC3b concentration Compared to forty and sixty fully-activated platelets present on control surfaces, surface modification with heparin and dextran sulfate significantly reduced the number of adherent platelets per 25000 μm2 area and the extent of platelet activation. Surface modification with anionic polysaccharides, however, did significantly shorten the plasma recalcification time leading to fibrin clot formation. The results of this study show that chitosan membrane surface can be modified by complexation-interpenetration of anionic modifying agents. The modified membranes do resist complement activation and platelet adhesion and activation.

L46 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1995:605246 HCAPLUS Full-text
DOCUMENT NUMBER: 123:17828
TITLE: Permeability and blood compatibility properties of chitosan-poly(ethylene oxide) blend membranes for hemodialysis
AUTHOR(S): Amiji, Mansoor M.
CORPORATE SOURCE: Dep. Pharmaceutical Sci., Northeastern Univ., Boston, MA, 02115, USA
SOURCE: Biomaterials (1995), 16(8), 593-9
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chitosan-poly(ethylene oxide) (PEO) blends membranes, using different mol. wts. of PEO, were developed for improved permeability and blood compatibility. The equilibrium hydration increased from 44.7% for chitosan to 62.5% for chitosan-PEO blend membranes when the mol. weight of PEO was 10,000 (10K) or higher. An increase in the hydration of PEO blend membranes was due to intermol. association between PEO and chitosan chains. SEM showed that chitosan-PEO membranes were highly porous with size ranging from 50 to 80 nm in diameter observed in membranes made with PEO10K. Electron spectroscopy for chemical anal. suggested an increase in PEO on the membrane surface with increasing mol. weight in the blend. The permeability coefficient of urea increased from 5.47 + 10-5 cm2 min-1 in chitosan to 9.86 + 10-5 cm2 min-1 in chitosan-PEO10K membranes. The increase in permeability coefficient could be either due to an increase in the hydrophilicity or the high porosity of the membranes. Although chitosan-PEO membranes did not prevent serum complement activation, platelet adhesion and activation were significantly reduced. Chitosan-PEO blend membranes, therefore, appear to be beneficial in improving the permeability of toxic metabolites and in reducing the thrombogenicity for hemodialysis.

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(FILE 'HOME' ENTERED AT 15:49:50 ON 10 AUG 2007)

FILE 'CAPLUS' ENTERED AT 15:57:53 ON 10 AUG 2007
E 63-5/CC
E 63/CC
E CATALYTIC SYSTEM/CT
E CATALYSTS+ALL/CT

FILE 'HCAPLUS' ENTERED AT 16:01:37 ON 10 AUG 2007
L1 646623 SEA ABB=ON PLU=ON CATALYSTS+PFT,NT/CT

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                E IMMOBILIZATION/CT
                E E3+ALL
                E E2+ALL
                E IMMOBILIZATION/CT
                E E24+ALL
L2          30422 SEA ABB=ON  PLU=ON  "IMMOBILIZATION, MOLECULAR OR CELLULAR"+PFT
                ,NT/CT
L3            334 SEA ABB=ON  PLU=ON  L1 AND L2
L4        2081504 SEA ABB=ON  PLU=ON  PROTEINS+PFT,NT1/CT
                E ANTIBODIES+ALL/CT
                E E2+ALL
L5         130829 SEA ABB=ON  PLU=ON  ANTIBODIES AND IMMUNOGLOBULINS+PFT,NT/CT
                E RNA/CT
                E E3+ALL
L6         295904 SEA ABB=ON  PLU=ON  RNA+PFT,NT/CT
                E APTAMERS+ALL/CT
L7            333 SEA ABB=ON  PLU=ON  APTAMERS+PFT,NT/CT(L)(RNA OR RIBONUC?)
                E CELLULAR COMPONENTS+ALL/CT
                E CELLS+PFT,NT/CT
                E CELL+ALL/CT
L8        1295009 SEA ABB=ON  PLU=ON  CELL+PFT,NT/CT
                E TISSUE+ALL/CT
                E E2+ALL
L9         490896 SEA ABB=ON  PLU=ON  ANIMAL TISSUE+PFT,NT/CT
                E MICROORGANISMS+ALL/CT
                E E2+ALL
L10         54942 SEA ABB=ON  PLU=ON  MICROORGANISM+PFT,NT/CT
                E ORGANELLE+ALL/CT
L11        476674 SEA ABB=ON  PLU=ON  ORGANELLE+PFT,NT/CT
L12            14 SEA ABB=ON  PLU=ON  METALS, BIOLOGICAL STUDIES/CT(L)CAT/RL
L13          3483 SEA ABB=ON  PLU=ON  L1 AND (L4 OR L5 OR L6 OR L7 OR L8 OR L9
                OR L10 OR L11 OR L12)
L14           183 SEA ABB=ON  PLU=ON  L13 AND L2
                E CARRIERS/CT
                E E3+ALL
                E E3+ALL
L15         14677 SEA ABB=ON  PLU=ON  DRUG DELIVERY SYSTEMS+PFT,NT/CT(L)CARRIER?

L16            39 SEA ABB=ON  PLU=ON  L15 AND L1
L17           118 SEA ABB=ON  PLU=ON  L15 AND L2
L18             1 SEA ABB=ON  PLU=ON  L16 AND L17
                E POLYSACCHARIDES+ALL/CT
L19        567474 SEA ABB=ON  PLU=ON  POLYSACCHARIDES+PFT,NT/CT
                E POLYVINYL/CT
                E POLYVINYL POLYMERS/CT
L20        156168 SEA ABB=ON  PLU=ON  CARBOXYLIC ACIDS+PFT,NT1/CT(L)POLY?
                E POLYOXYALKYLENES+ALL/CT
L21        257262 SEA ABB=ON  PLU=ON  POLYOXYALKYLENES+PFT,NT/CT
                E SURFACTANTS+ALL/CT
L22        246789 SEA ABB=ON  PLU=ON  SURFACTANTS+PFT,NT/CT
                E PHOSPHOLIPIDS+ALL/CT
L23        162076 SEA ABB=ON  PLU=ON  PHOSPHOLIPIDS+PFT,NT/CT
                E CARBXYALKYL CELLULOSE/CT
                E CARBOXYALKYL CELLULOSE/CT
                E CARBOXYALKYLCELLULOSE/CT
                E CELLULOSE+ALL/CT
L24          4455 SEA ABB=ON  PLU=ON  CELLULOSE+PFT/CT(L)(CARBOXYMETHYL? OR
                CARBOXYETHYL? OR CARBOXYALKYL?) OR "CARBOXYMETHYL CELLULOSE"/CT

                E ALGINATE/CT
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L25       116629 SEA ABB=ON  PLU=ON  9002-89-5/RN OR 9004-32-4/RN OR 9005-49-6/R
              N OR 9042-14-2/RN OR 9086-85-5/RN OR 25087-26-7D/RN
L26         3310 SEA ABB=ON  PLU=ON  25322-58-3D/RN OR 118037-03-9/RN OR
              9004-61-9D/RN OR 9005-32-7D/RN
L27       119171 SEA ABB=ON  PLU=ON  L25 OR L26
              E CHITOSAN/CT
              E E3+ALL
L28        23270 SEA ABB=ON  PLU=ON  CHITOSAN+PFT/CT
              E CHITIN/CT
              E E3+ALL
L29        10235 SEA ABB=ON  PLU=ON  CHITIN+PFT,NT/CT
              E POLYACRYLATES+ALL/CT
              E E5+ALL
              E E2+ALL
L30        22096 SEA ABB=ON  PLU=ON  "POLY(ACRYLIC ACID)"+PFT/CT
L31        97395 SEA ABB=ON  PLU=ON  CELLULOSE+PFT/CT
L32        19852 SEA ABB=ON  PLU=ON  (L4 OR L5 OR L6 OR L7 OR L8 OR L9 OR L10
              OR L11 OR L12) AND (L28 OR L29 OR L30 OR L31)
L33        19346 SEA ABB=ON  PLU=ON  L32 AND (L19 OR L20 OR L21 OR L22 OR L23
              OR L24 OR L25 OR L26)
L34         1274 SEA ABB=ON  PLU=ON  L33 AND (L1 OR L2 OR L15)
L35          168 SEA ABB=ON  PLU=ON  L33 AND L1
L36          831 SEA ABB=ON  PLU=ON  L33 AND L2
L37          314 SEA ABB=ON  PLU=ON  L33 AND L15
L38           38 SEA ABB=ON  PLU=ON  (L35 AND (L36 OR L37)) OR (L36 AND L37)
L39            1 SEA ABB=ON  PLU=ON  L38 AND HYBRID/TI
              D SCA TI
              E AMIJI M/AU
L40          170 SEA ABB=ON  PLU=ON  ("AMIJI M"/AU OR "AMIJI M M"/AU OR "AMIJI
              MANSOOR"/AU OR "AMIJI MANSOOR M"/AU OR "AMIJI MANSOOR MUSTAFA"/
              AU)
              E TAQIEDDIN E/AU
L41            2 SEA ABB=ON  PLU=ON  ("TAQIEDDIN EHAB"/AU OR "TAQIEDDIN EHAB
              S"/AU)
L42          170 SEA ABB=ON  PLU=ON  (L40 OR L41)
L43            2 SEA ABB=ON  PLU=ON  L42 AND ?CATAL?
L44            4 SEA ABB=ON  PLU=ON  L42 AND IMMOBIL?
L45           14 SEA ABB=ON  PLU=ON  L42 AND PERMEABIL?
L46           16 SEA ABB=ON  PLU=ON  (L43 OR L44 OR L45)
L47           53 SEA ABB=ON  PLU=ON  L38 OR L46
L48            1 SEA ABB=ON  PLU=ON  L46 AND L38
              D SCA TI
L49           37 SEA ABB=ON  PLU=ON  L47 NOT L46

    FILE 'CAPLUS' ENTERED AT 16:38:41 ON 10 AUG 2007
              D QUE L38

    FILE 'HCAPLUS' ENTERED AT 16:38:56 ON 10 AUG 2007
              D L38 IBIB ABS HITIND HITSTR TOT

    FILE 'CAPLUS' ENTERED AT 16:39:19 ON 10 AUG 2007
              D QUE L46

    FILE 'HCAPLUS' ENTERED AT 16:40:40 ON 10 AUG 2007
              D L46 IBIB ABS TOT

    FILE 'CAPLUS' ENTERED AT 16:40:41 ON 10 AUG 2007
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